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PROJECT
SOUTH AFRICA

USAID TB Project South Africa

Annual Report (1 October 2011 to 30 September 2012)



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ANNEX B – M & E PROJECT PERFORMANCE QUARTERLY REPORT ERROR!
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LIST OF ACRONYMS

3Is	Intensified case finding, Isoniazid preventive therapy and Infection control
ACSM	Advocacy, Communication and Social Mobilization
AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Therapy
ARV	Antiretroviral treatment
BC	Bacteriological Coverage
CBO	Community-Based Organization
CDC	Centre for Disease control
CHC	Community Health Centre
CHCW	Community Health Care Workers
CPT	Cotrimoxazole Preventative Therapy
DHIS	District Health Information System
DOH	Department of Health
DOT	Directly Observed Treatment
DOTS	Directly Observed Treatment Short-course
DR – TB	Drug Resistant Tuberculosis
DRAT	District Rapid Assessment Tool
DRS	Drug Resistant Survey
DST	Drug Susceptibility Testing
EC	Eastern Cape Province
ETR	Electronic TB Register
FS	Free State Province
GP	Gauteng Province
HAST	HIV, AIDS, and Sexually Transmitted Infections and TB
HCT	HIV Counselling and Testing
HCW	Health Care worker
HIV	Human Immunodeficiency Virus
HST	Health Systems Trust
IC	Infection Control

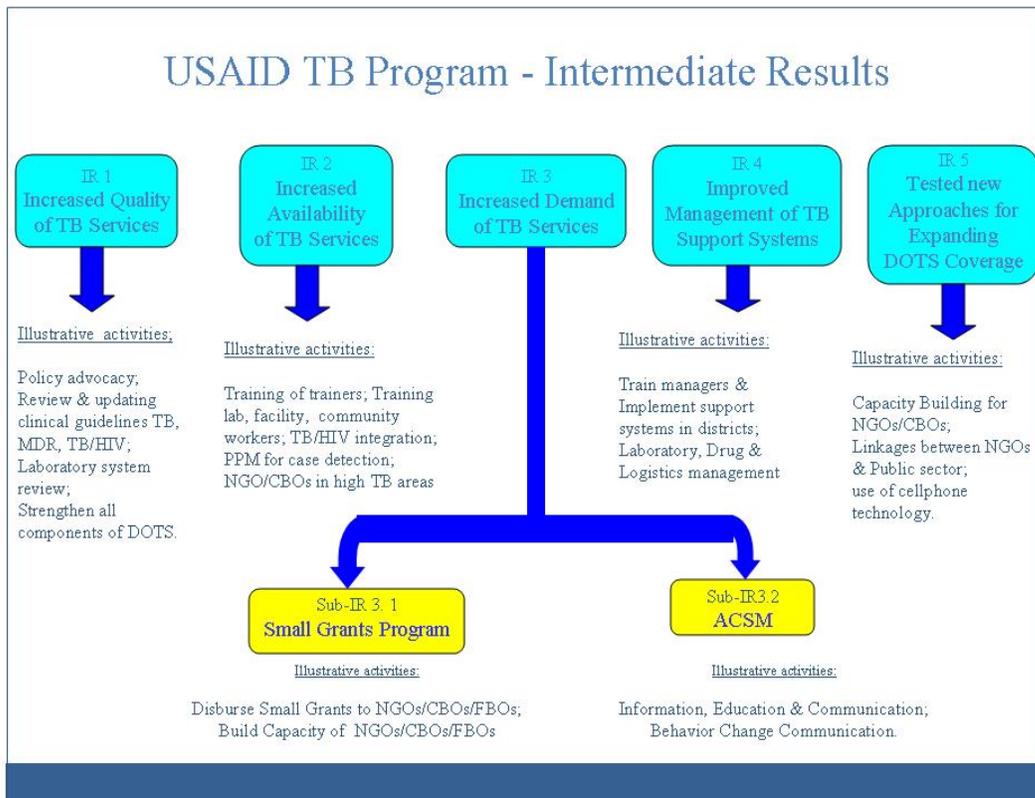
ICF	Intensified Case Findings
ILO	International Labour Organization
IPT	Isoniazid Preventive Therapy
IR	Intermediate Results
IUATLD	International Union against Tuberculosis and Lung Disease
IYA	Imbume Yamakhosikazi Akomkhulu
KZN	KwaZulu Natal Province
LOP	Life of Project
LP	Limpopo Province
M & E	Monitoring and Evaluation
MDR – TB	Multi-drug Resistant Tuberculosis
MIS	Management Information System
MPU	Mpumalanga Province
NC	Northern Cape Province
NDOH	National Department of Health
NGO	Non – Governmental Organization
NHLS	National Health Laboratory Service
NMBM	Nelson Mandela Bay Metro
NTP	National Tuberculosis Control Program
NW	North West Province
PDOH	Provincial Department of Health
PEPFAR	President Emergency Plan for Aids Relief
PPM	Public-Private Mix
PPM	Public – Private Mix
PSA	Public Service Announcement
PTB	Pulmonary Tuberculosis
SABCOHA	South African Business Coalition
SAG	South African Government
SCR	Smear Conversion Rate

SND	Smear Not Done
SO	Strategic Objectives
TB	Tuberculosis
THP	Traditional Health Practitioners
TOT	Training of Trainers
TSR	Treatment Success Rate
URC	University Research Co., LLC
USAID	United States Agency for International Development
VCT	Voluntary Counselling and Testing
WAD	World AIDS Day
WC	Western Cape Province
WHO	World Health Organization
XDR – TB	Extensive drug resistant TB

1 EXECUTIVE SUMMARY

The FY2012 Annual report covers activities implemented by the USAID TB South Africa Program FY2012 (October 2011 to September 2012), the third year of project implementation. The report provides a synopsis of the activities, results, accomplishments and challenges during the year. The detailed Monitoring and Evaluation (M&E) report provides comparisons in performance at both district and provincial level showing the progress made towards meeting targets, as is submitted separately as an annexure.

The activities implemented are guided by the Strategic Objectives (SO) and the related Intermediate Results (IRs) as reflected below.



During FY2012, the project made significant progress towards meetings the set targets, despite challenges with resignations and delays in replacing staff. Implementation of activities began in the Western Cape Province and Sekhukhune in Q2 2012 following the recruitment of Provincial Coordinators.

A summary of the project performance results according to the expected IRs is provided in the proceeding sections that highlight achievements and challenges in the reporting period.

1.1 IR 1: Increased Quality of TB Services

Project performance: The *treatment success rates* indicate that seven districts have achieved the 80% set target, compared to five districts in Q3/2012. Significant improvements have

been observed in UMgungundlovu and Sedibeng districts. *Treatment cure rates* have also improved, with seven districts having achieved the 75% target, while five districts are performing below the 70% mark.

Fourteen districts have achieved or surpassed the 75% target for *Smear Conversion Rates*, while five districts are performing below the 70% mark. *Defaulter Rates* remain a challenge, with only four districts and four sub – districts in North West have achieved the target of 5% or less. Due to data quality issues in North West province, the reports for the province have to be treated with caution.

1.2 IR 2: Increased availability of TB services

Capacity building: In the FY2012, the National Training Task Team developed the Comprehensive training package for tuberculosis (TB) and TB/HIV, which was piloted and is being finalized. Training was conducted for 7,335 health care workers (HCWs) on Basic TB, Clinical MDR TB, TB/HIV management, GeneXpert, Infection Control (IC) and Risk assessment. Among those trained 247 were community health care workers (CHCWs) who were trained on Infection Control and 40 on Basic TB management.

Seven doctors from five provinces were trained as master trainers of clinical MDR TB management. The trainers have to date conducted training for 120 nurses and doctors.

Ensure functional TB/HIV Integration: A total of 319,199 HIV positive clients were received care and support in FY 2012. More screening was conducted for TB clients than those who are HIV-positive (678,017), with the five district each reporting more TB clients than HIV-positive clients. During FY2012, a total of 101991 HIV clients were initiated on Isoniazid Preventive Therapy (IPT). The IPT uptake dropped in the last quarters due to a number of reasons, such as: stock out of HIV testing kits nationally and changing of testing kits due to quality issues reported in Q3/2012. Only 23,002 HIV clients were put on IPT, half of the 52153 reported in the previous quarter.

In FY2012, HIV testing for TB patients only improved by 3.4% from 81.2% in July – September 2011 to 84.6% in April – June 2012. The policy on Antiretroviral Therapy (ART) provision for TB/HIV co-infected patients changed in April 2012. It allowed for all co-infected patients to be initiated on ART despite the CD4 count level. Uptake of ART has not significantly improved following the changes, except in few districts, despite in service training having been provided. According to district reports, only 43.8% of co-infected patients are on ART. Cotrimoxazole preventative therapy (CPT) uptake improved from 66% to 75% during the same reporting period.

MDR-TB: Following the community-MDR TB (c-MDR TB) workshops and implementation of the c-MDR TB plans, seven provinces covering 38 districts have been able to prepare c-MDR TB plans. Implementation of c-MDR TB activities has started in five districts, with injection teams allocated for managing patients in the community. Support supervision visits were conducted to Uthungulu and Zululand districts to assess and mentor them on c-MDR TB support, while the support in Eastern Cape involved participation in the provincial meeting.

Laboratory Diagnostics: Project interventions to address low bacteriological coverage (BC) or inherent high smear not done (SND) have been implemented to various degrees with some of the districts already showing a positive impact as is the case with Mokopane hospital which has moved from BC of 44% in Q4/2011 to 100% in Q2/2012. In terms of inputs, the

project has initiated the purchase of 11 GeneXpert® machines. The instruments are placed in these 11 projects supported districts: Waterberg and Sekhukhune, Amathole, Bojanala and Ngaka Modiri Molema. The project has trained 388 HCWs on GeneXpert® and will continue to assist in training more HCWs to support implementation. As part of supporting the Drug Resistance Survey (DRS), 174 HCW were trained in Northern Cape and North West provinces.

1.3 IR 3: ACSM

In FY2012, the USAID TB Project had planned to conduct community dialogues, develop IEC material, develop 3 PSA and conduct community activations as part of the ACSM strategy for FY2012. The project printed 37,500 IEC materials to raise awareness about TB at provincial activities organized by districts together with USAID TB project. Community Dialogues were conducted in 5 provinces to build social cohesion and communities' response to key issues around TB. A new public service announcement (PSA) on Cough Etiquette will be broadcast in two bursts (September –October) and (November to December) on mainstream media reaching 13, 131, 390 (69% of coverage population) listeners in 4 national TV stations and 8 pay channels, and 13, 685,000 (55% of coverage population) listeners in 5 national radio station, reaching a.

The USAID TB Project had exhibition stands at a number of events in FY 2012: Free State TB/HIV Summit; presented papers at both the Public Health Association of South Africa (PHASA) and m-Health conference, Union conference in Lille and the 3rd SA TB conference.

1.4 IR 4: Improved Management of TB Support Systems

Support for ETR.net this quarter identified challenges with the version 2 ETR.net which was introduced in June 2012. The challenges identified necessitated all the districts which were implementing version 2 ETR.net to recapture all the data from April 2012. This resulted in the need for the USAID TB project to support Mpumalanga Province in recapturing of data for reporting purposes.

Data verification exercises were conducted in NMBM, Ngaka Modiri Molema and Northern Cape, with notable improvements in the data.

1.5 IR 5: Tested New Approaches for Expanding DOTS Coverage

In Q4/2012 the project expanded public-private mix activities to involve the South Africa Business Coalition (SABCOHA), Traditional Health Practitioners (THPs), mines and private hospital to increase the availability of TB and TB/HIV services. SABCOHA provided a platform through which TB was brought in as part of the provincial Business Strategy to address the NSP HIV and AIDS and STI 2012-2016. Collaboration with Imbembe Yamakhosikazi Akomkhulu (IYA), a woman led initiative comprising of the wives of the chiefs in rural areas of the Eastern Cape Province will incorporate cultural beliefs and support structure to address TB at community level.

1.6 Small Grants

During FY2012, funding has been provided to 17 non-governmental organizations (NGOs) to implement 19 projects. Likewise, 10 more NGOs have been approved for funding in Q4/2012. A total of 35,460 community members were reached through ACSM activities by the grantees, while 23,435 were screened for TB. A total of 3,373 TB suspects were identified, and 214 diagnosed with TB and started on TB treatment.

Evaluation of grantees was conducted to assess their capacity to implement projects, after which training was conducted to determine their Project and Financial management abilities. An online training module for NGOs was developed to provide NGOs with access to Basic TB, Project Management and Financial management training when needed.

Following the FY 2013, Wave 4 request for proposals, 230 concept papers were received and selection of those who have to submit proposals has been started.

2 INTRODUCTION

The USAID TB Project South Africa supports the National Tuberculosis Program (NTP)'s strategies for: improving early case detection, increasing access to diagnostics, ensuring treatment support for patient on TB treatment and ensuring that there is provision of appropriate and timely HIV care for TB patients and ART treatment for all TB/HIV co-infected patients. Overall, the USAID TB Project continues to develop its multi-level support working closely with:

- A. The NTP to build national support by mobilizing resources and creating a conducive environment for expansion of TB services. This includes TBHIV and developing strategic interventions that could rapidly address MDR/XDR TB threats;
- B. Provincial and district health departments to support the collaborative development of need based strategies to combat TB, TBHIV and DRTB, as well as communities to create appropriate social mobilization and service delivery models for rapid DOTS expansion in the country.

The Project's *technical* and financial inputs will contribute to the following expected results:

- Case detection rate of 70% and a treatment success rate of 80% achieved;
- Improved capacity to plan and implement TB DOTS at community, facility, district, municipality, provincial and national levels;
- Improved surveillance system resulting in early detection of TB cases, DR TB cases, co-infected patients for ART as well as to prevent treatment defaulters and reduce mortality
- Improved understanding and support among the general population regarding TB and TB/HIV signs, symptoms, referral, and treatment.

During FY2012, the Project has amended strategies to incorporate changes in South African Government (SAG)'s key policies. These key strategic policies include the following:

- Health Sector 10 Point Plan, in which point seven specifically emphasizes accelerated implementation of the National Strategic Plan for TB, HIV and AIDS and STI 2012-2016 reduction of mortality due to TB;
- Decentralization of services to PHC and nurse initiated diagnosis, treatment, and monitoring of HIV infected patients including management of TB/HIV co-infected patients. The criteria for initiation of ART for co-infected patients which changed to allow ART initiation for all co-infected patients.

- Revised National Drug Resistant TB (DR – TB) Control policy: amendment addressing decentralization of DR – TB care and community based management of DR TB;

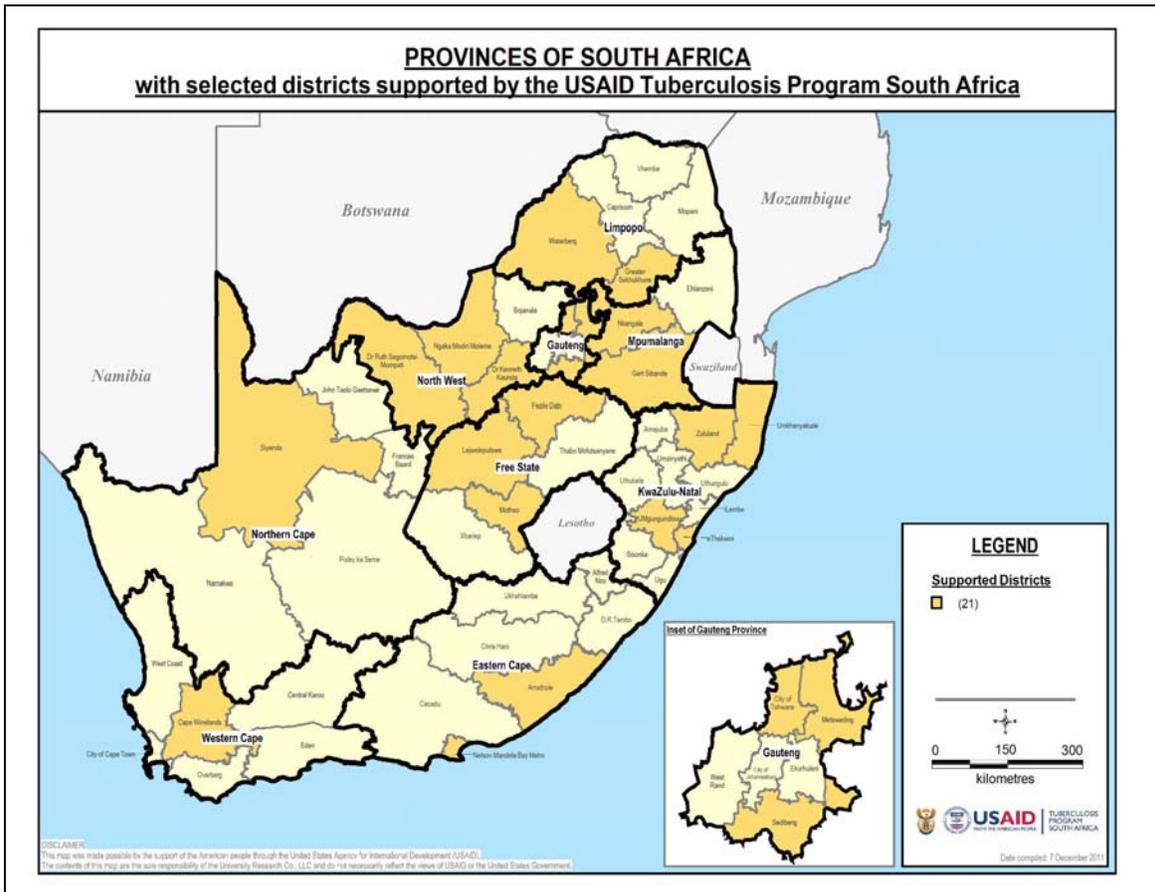
During FY2012, activities were implemented in all the 24 supported districts (**project districts are reflected in the map on page 10**), while baseline assessments were conducted in two of the newly added districts, Xhariep and Chris Hani.

3 OVERALL PROJECT PERFORMANCE

3.1 Performance by Geographic Coverage

The project geographical coverage represents 44% (24/53) of all the districts in the country as reflected in the map below. **Figure 1** illustrates the districts supported by the USAID TB project.

Figure 1: USAID TB allocated districts by province.



Progress on USAID overall Targets

Progress on the indicators is presented in **Table 1** below. Major achievements in FY2012 include the development of the Drug Resistance Survey (DRS) training material which is used nationally to train health care workers on the National Drug Resistance Survey that is

being conducted. The project has also provided critical support to introduce wide scale use of GeneXpert technology to improve TB diagnoses including development of training materials and training programs to accompany implementation of GeneXpert

The project supports capacity building for TB providers, TB program staff and communities in a number of ways, including training public sector healthcare workers (HCW) in TB diagnosis and case management. The target for training HCWs was set at 3,500 in 2012. The project was able to meet and exceed the target (a total of 3,542 health care workers have been trained) and provide training in various topics to improve patient care and management. The training also included community HCWs (CHCW), who are part of the PHC teams providing services at community level. As part of expanding services to health care providers outside the Ministry of Health (MoH), the project supported public-private partnership activities, which have led to a total of 3,003 TB cases which were reported from non-MOH facilities. This is lower than the set target of 4,000. The reasons for not achieving the target include ETR.net challenges and data backlogs, which resulted in fewer cases being reported, as indicated above under case finding. An example is North West province, where low TB cases were reported. In Mpumalanga, recapturing of data had to be conducted to ensure that reports are available. Update to the data will be provided as data becomes available.

The proportion of TB patients tested for HIV has improved slightly from 82.6% in FY2011 to 84.6% in FY2012, compared to the target of 90%.

The target for Treatment Success Rate (TSR) for new SS+ve cases is 80%. The project has managed to achieve 77.1% TSR for new ss+ve cases, 2.9% less than the target of 80%. Cure rates for ss+ve cases have improved, but are still lower than the target of 75%. The defaulter rates remain higher than the 5% target at 7.6%. Challenges to achieve the target include the highly mobile nature of TB patients in many project districts, as well as the continued impact of negative social factors like alcohol and stigma.

Table 1: FY 2012 Indicator Progress Summary

<i>Indicator</i>	<i>Target (Oct 11 – Sept 12)</i>	<i>Achieved (Oct 11 – Sept 12)</i>
Number of improvements to laws, policies, regulations or guidelines related to improved access and use of health services drafted with USG support	2	-Drug resistant survey training material -GeneXpert training material
Number of people trained in DOTS with USG funding	3500	3542
Number of TB cases reported to NTP by USG-assisted non-MOH sector.	4000	3003
% of all registered TB patients who are tested for HIV through USG-supported programs	90%	84.6%
% of registered new smear positive pulmonary TB cases that were cured and completed treatment under DOTS (i.e. treatment success rate) in USG-supported areas	80%	77.1%
SCR rates for new smear positive cases	75%	73.3%
Cure rates for new smear positive cases	75%	69%
Defaulter rates for new smear positive cases	≤5%	7.6%

Programme Performance by Project Supported Districts:

The performance of the USAID TB project by the specific supported districts is contained in a separate district performance M&E data report which is an annexure to this report.

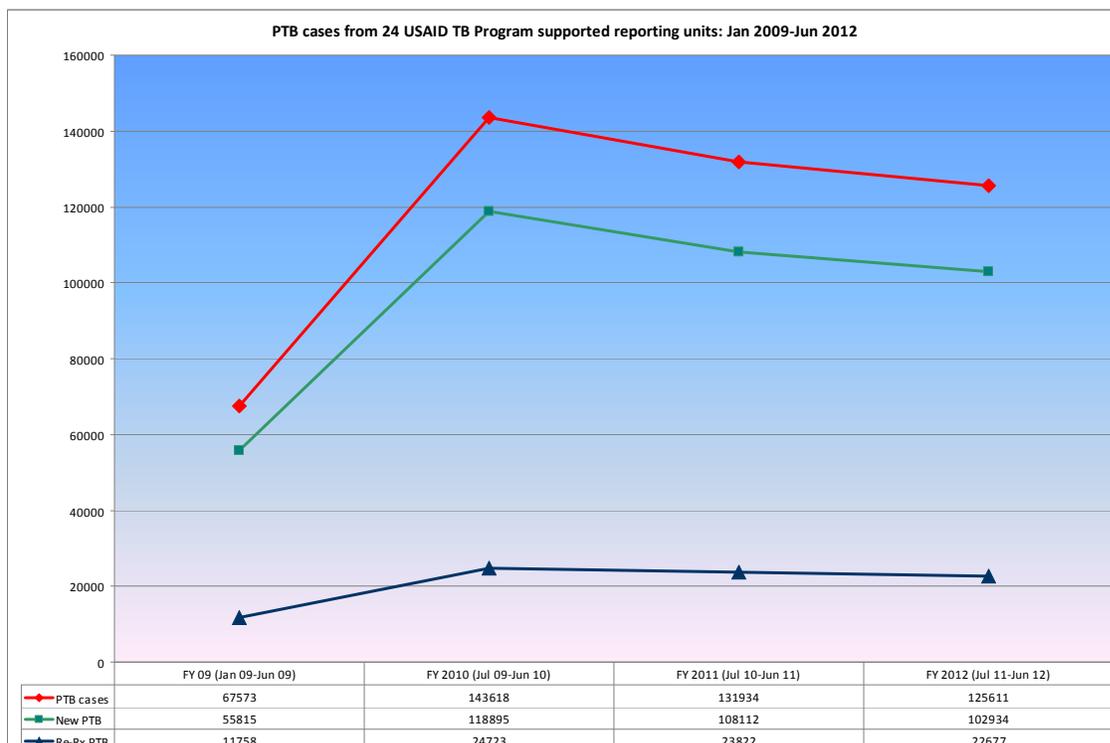
During FY2012, a total of 143,308 TB cases were reported in the 24 supported districts. This was lower than the 153,088 reported in FY2011. Pulmonary Tuberculosis (PTB) cases accounted for 125,611 of the cases. This represent a decrease of 8,817 compared to the TB cases reported in the previous year (**Figure 2 and Figure 3**). The decreasing trends in TB cases reported were also noted in FY 2011 compared to FY 2010. This decreasing trend has been noted countrywide, despite the ICF campaign which was conducted between April 2011 and June 2012. A similar trend has also been reported by WHO in September 2011.

TB Case Finding

Figure 2: TB cases by site of disease



Figure 3: PTB cases January 2009-June 2012



3.2 Performance by Intermediate Results

The performance of the USAID TB project by the specific supported districts is contained in the detailed M&E data report in the **Annex section of this report**.

3.2.1 IR1- Improved quality of TB services:

The USAID TB Project has continued to build on previously established relationships in an effort to improve performance of the National TB Program. The TB Project has maintained strong collaborative relationships with stakeholders which has facilitated involvement by the project in the review of guidelines, development of training material, the implementation and monitoring of guidelines and the review of tool and job aids developed aimed at improving implementation.

3.2.1.1 Collaboration with Provincial DOH and other stakeholders

National Meetings

NTP Quarterly meetings were attended by Directors and Advisors to ensure that the Project is in line with and supports implementation of recommendations from the meetings.

Strategic collaborative meetings were conducted with the National Health Laboratory Service (NHLS) and the National Department of Health (NDoH) as part of the DR Survey Task Team to discuss and finalize implementation of the National DRS. The USAID TB Program South Africa was tasked with supporting this activity through the development of training material and conducting some of the initial training.

Following the appointment of the PPM Advisor, strategic plenary and advocacy meetings were conducted with the International Labour Organization (ILO), Mine Medical Practitioners Association and SABCOHA, in an effort to increase access to TB services within private sector and mining industry. In KwaZulu Natal collaboration expanded to include the Premier's office, where the Provincial Council on AIDS is coordinated.

National Support Activities

The Project is part of the national TB/HIV team headed by NDoH which conducts quarterly support visits to all provinces. Since October 2011, North West, Mpumalanga, Free State and KwaZulu Natal were provided with such support. The USAID TB Project participated in all four support visits in order to provide support to provinces as part of the National TB Programme management support. The visits are preceded by interrogation of data and identification of key challenges to be addressed with the provinces. Support supervision and intervention plans were developed for facilities identified as having challenges.

Diagnostics

Separate meetings with the NHLS Northern and Central regions' Executive managers were organized and conducted by the Laboratory Advisor. This assisted in re-establishing relationships, providing updates on diagnostic activities and challenges related to laboratory as experienced by colleagues in the districts, and discussing possible joint activities. The diagnostic challenges in Gauteng include backlog in AFB results, discrepancies in results from the same specimen and SMS results reporting blood results.

ACSM

During FY2012, as part of the National ACSM Task Team, the Project jointly planned the two major national activities involving TB and HIV/AIDS. This culminated in successful hosting of the National World AIDS Day in Eastern Cape and the National World TB Day in Gauteng province during March 2012. A meeting with the Director ACSM was conducted in Q4/2012. The purpose of this meeting was to introduce the project and plan for the FY2013. Quarterly meetings between the USAID TB Program and ACSM Directorate will be conducted to ensure that all the activities are aligned and conducted jointly.

Provincial Meetings and Activities

In **Free State Province**, a provincial TB/HIV Summit was jointly hosted with the FSDoH. The purpose of the Summit was to strengthen TB/HIV integration in Free State in line with the NSP 2012-2016. This is discussed in *section 3.4* below.

In **Limpopo Province**, a meeting to discuss the monitoring of the GeneXpert implementation in Waterberg District was organized with the Provincial DoH. The meeting was attended by Limpopo DoH as well as NHLS. Waterberg District received seven GeneXpert machines funded by the USAID TB Project. Key points for follow-up from the meeting include a plan to conduct baseline assessments, capacity building for staff to re-enforce the information previously provided in the trainings.

In **Mpumalanga** the project participates in the district DOT meetings in Gert Sibande and Nkangala districts to collate, analyse, interpret and validate data from paper-based systems to the ETR.net.

In **Western Cape**, since the appointment of a coordinator to support Cape Winelands, the project has been participating in the District Management Team (DMT) quarterly meetings where progress on TB and TB/HIV is discussed, and interventions planned.

In **KwaZulu Natal**, in a meeting with the Senior Management, a request to develop a Provincial TB Strategy was agreed upon. A workshop jointly hosted with the KZDoH was conducted to initiate the development of the TB Strategy. The workshop highlighted the situation of the TB and TB/HIV Program in KwaZulu Natal, the mandate of the USAID TB Project, observations by the USAID TB Project of the TB Program in KwaZulu Natal, and challenges which have to be addressed to improve the performance of the TB Program.

The project is also working with the PDOH in KZN to support plans to expand availability of TB services in the province, for example by introducing TB services in more facilities. An example is a newly built facility in Kwa Mashu CHC, which was not providing TB services in the facility, resulting in patients, including pregnant women having to walk to the old facility for TB services. There are data quality challenges due separate reporting for the two facilities, resulting in loss of some of the data. The USAID TB Project, together with EThekweni District, is part of the Quality Improvement Team providing support to the facility to address the identified challenges.

3.2.2 Support for DOTS expansion:

3.2.2.1 Increase access to diagnostic services

As part of ensuring early case detection, the project purchased 11 GeneXpert instruments as part of contribution to the roll out of GeneXpert nationwide. The instruments were delivered and installed at the relevant NHLS laboratories in five USAID TB supported district across three provinces (Limpopo, Northwest and Eastern Cape). GeneXpert training was provided to HCWs from all the districts in this quarter to ensure that they understand the new diagnostic algorithm using GXP and its implication on patient management.

3.2.2.2 Monitoring of diagnostic indicators

The project monitors key diagnostic indicators to improve access to quality microscopy and ensure patient monitoring according to the South Africa TB management guidelines. The rollout of the GeneXpert machine was meant to improve sputum TAT as well diagnose Rif resistant TB. When evaluating the implementation, challenges were identified and training and coaching of staff conducted. Some of the challenges include: improper use of the GeneXpert where it is used for monitoring patients; lack of confidence in the technology leading to clinicians still waiting for culture and DST results, when Rif resistance is diagnosed with GeneXpert. Training was conducted and has continued in all provinces where the need is identified. To date a total of 338 HCWs were trained on the GeneXpert algorithm, while 92 were trained on DR Survey.

Bacteriological coverage (BC, NTP target = 100%)

Bacteriological coverage (BC) is an indicator which monitors diagnosis of TB through quality smear microscopy and other laboratory diagnosis. It gives an indication of whether guidelines for managing TB are being implemented correctly. The project monitors BC through ETR.net data in all supported sub-/districts.

BC improved from 78.4% to 82.3%, while the rate of pre-treatment no smears decreased from 21.6% in FY2011 to 17.3% in FY2012. Since Q1/2012, only six of the supported districts have been able to reach or maintain a BC of 90% or more. These districts are: Sekhukhune, Umkhanyakhude, Siyanda, Thabo Mofutsanyane, Cape Winelands and UMgungundlovu. (**Figure 4** and **Figure 5**)

Figure 4: Bacteriological Coverage: January 2009-June 2012

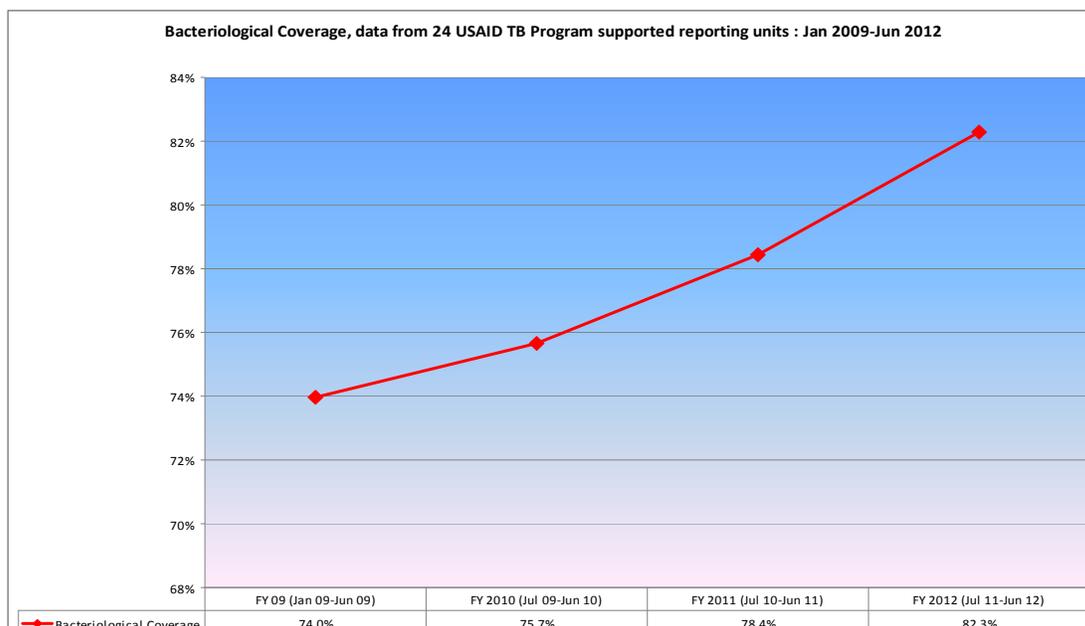
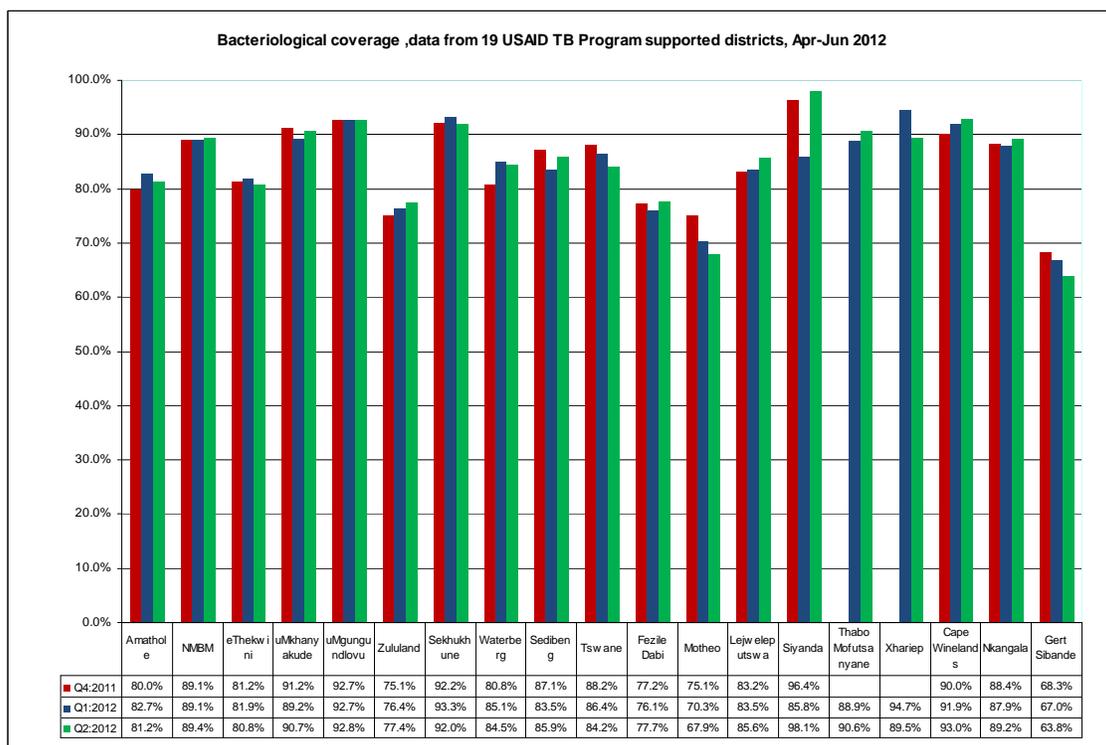


Figure 5: Bacteriological Coverage in USAID TB supported districts: Q4/2011 to Q2/2012.



Low BC indicates that patients are being diagnosed without a laboratory confirmation (bacteriological test), indicating that guidelines are not being adhered to. There are 4 districts which have a BC lower than 80%: Fezile Dabi, Zululand, Motheo and Gert Sibande (in descending order of performance). They have been monitored in FY2012 and have shown improving trends.

Interventions by the project to address low BC / high smears not done (SND)

Since Q1/FY2012, the project has embarked on various interventions to address SND over the entire financial year, with activities ranging from: (i) collaborative approach workshop in Gert Sibande; (ii) supporting establishment or strengthening of TB focal points at affected hospitals (e.g. Mokopane in Limpopo, National in Free State, three hospitals in Sedibeng); (iii) data management exercise in Nkangala; (iv) targeted facility support visits guided by ETR.net data, and (v) the implementation of the appointment diary across various supported districts, but the impact on BC and other indicators is yet to be monitored and evaluated.

The findings of the various interventions mentioned above have revealed a wide range of reasons for high SND including: (i) lack of or poor recording of results; (ii) too early or late collection of smears leading to incorrect categorization by ETR.net; (iii) diagnosis using other means such as CXR, and (iv) challenges related to variable implementation of GeneXpert where baseline smears are not collected and/or GeneXpert results are not captured into ETR.net.

Monitoring use of culture and drug susceptibility testing (DST) for eligible patients / suspects

The Nelson Mandela Bay Metro (NMBM) team in conjunction with the URC Regional TB/HIV Advisor conducted a record review at Wells Estate clinic to investigate among others, the uptake of culture and DST for eligible suspects/patients (retreatments, non-converters etc.), after preliminary results in other facilities in NMBM had revealed this as a challenge. The activity was initiated in Q1/2012 to assess the uptake of culture and DST among retreatment TB cases in NMBM.

Wells Estate clinic was found to have the highest MDR TB cases reported, with 32% prevalence of MDR TB reported. Review of facility data was jointly conducted with the sub district.

Table 2 below depicts the missed opportunities (range 44.4% and 67.5%) in diagnosing MDR TB patients, despite that fact that there is a high prevalence of retreatment cases in the district.

Table 2: Missed opportunities in MDR TB diagnosis among retreatment cases in NMBM

	2008	2009	2010	2011	2012
Total no. TB cases	272	311	373	275	157
No. retreatments	57	76	95	81	40
Culture not requested	21	38	24	12	20
No record of request for culture	1	0	1	3	1
Contaminated culture	0	0	3	3	1
Culture result not available	1	4	2	0	2
DST not requested	3	6	11	13	3
No record of request for DST	1	0	3	4	0
Loss of viability for DST	7	0	0	0	0
DST result not available	2	3	2	1	0
Total missed opportunities	36	51	46	36	27
Rate of missed opportunities in retreated patients	63.2%	67.1%	48.4%	44.4%	67.5%

Besides the interventions which are specific for the facility, an SOP for evaluating the uptake of culture and DST has been developed to address management of retreatment cases. Similar investigations will be conducted in other in other districts.

3.2.2.3 Standardize supervision and patient monitoring during treatment

To ensure that patients receive standardized treatment and are provided with support for them to complete TB treatment, the project planned and conducted training for both HCWs and CHCWs on Basic TB, MDR TB management as well as TB/HIV management to ensure standardized treatment. Detailed progress on training is provided under IR2.

Smear Conversion rate (SCR) is a key indicator to track whether patient monitoring is being conducted according to guidelines during TB treatment. **Figure 6** depicts progress made towards the set target of 75% by the USAID TB Project.

For new ss+ve cases, SCR improved from 70.9% in FY2011 to 74.3% in FY2012, just below the 75% target; while re-treatment cases also improved from 58.6% in FY2011 to 62.7% in FY2012 (**Figure 6** and **Figure 7**).

The proportion of smears not done for both new ss+ve and re-treatment cases has decreased following interventions mentioned above. Since Q1/2012, the project embarked on a number of activities aimed at reducing the high proportion of smears not done pre-treatment and during smear conversion. TB focal points were established in hospitals, while data verification and TB/HIV collaborative workshops exercises were conducted.

In addition to the interventions above, a TB Diary was developed and printed to address the monitoring of TB patients at facility level. The diary is aimed at decreasing treatment interruption and reduce treatment defaulter rate. In-service training was provided to HCWs on the use of the diary. Progress on implementation will be reported in Q1/2013.

Figure 6: Smear conversion rates-new ss+ve cases- Jan 2009 - March 2012

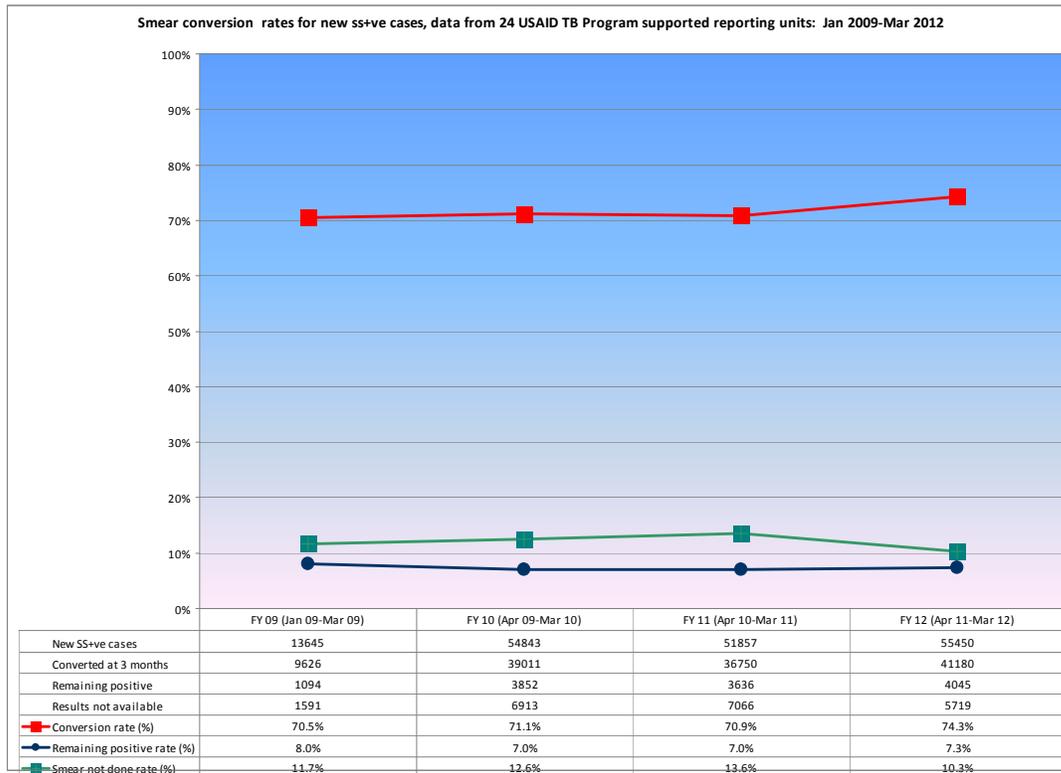
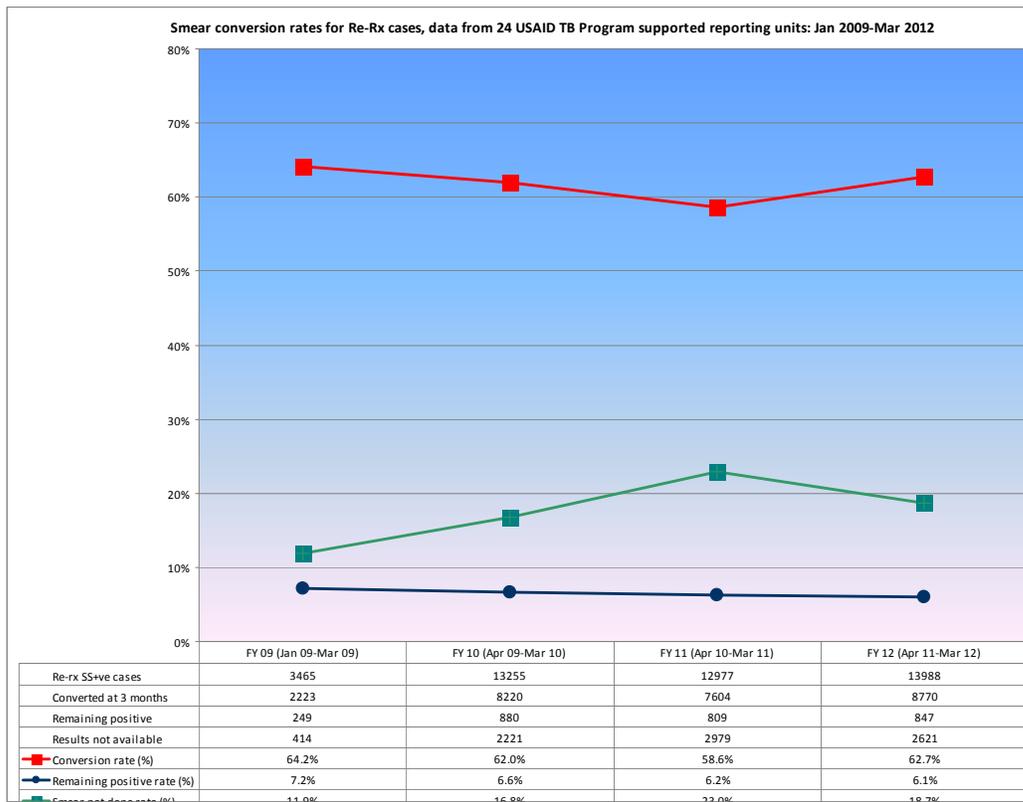


Figure 7: Smear conversion rates-Re-treatment cases- Jan 2009 - March 2012



3.2.2.4 Treatment Outcomes for the 24 supported districts and sub-districts

Treatment outcome indicators are used to measure the impact of the interventions implemented over time. Three indicators are reported on: cure rate, treatment success rate and defaulter rate. Mortality rate is being monitored, and highlighted in districts and provinces which are affected.

The Project targets for FY2012 were: Cure Rates 75%, Treatment Success Rate (TSR) 80%, and defaulter rate less than 5%.

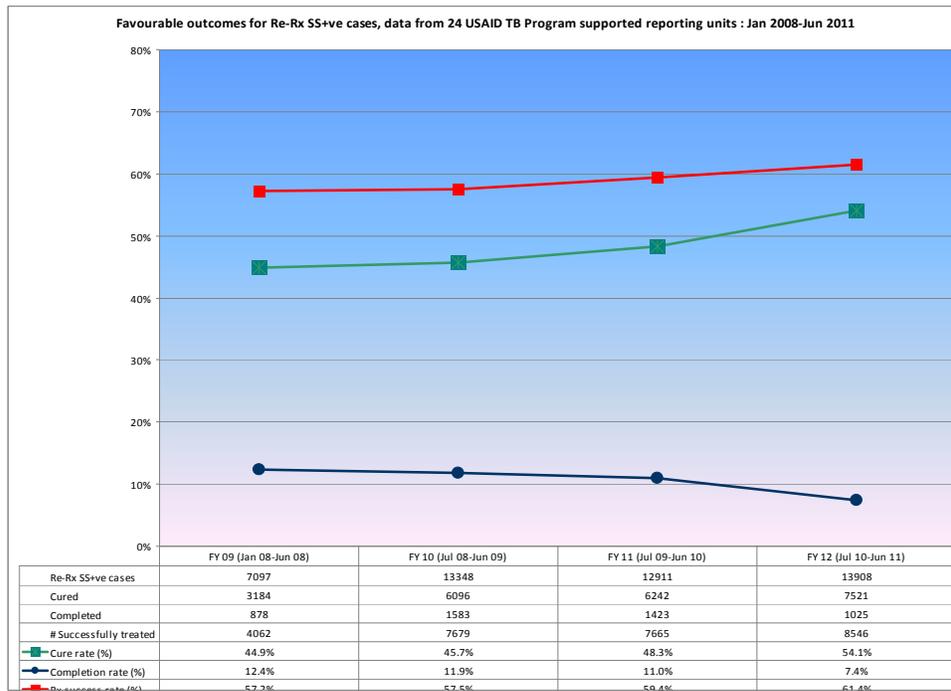
Although these targets were not achieved, the TSR for new ss+ve TB cases improved from 73.8% in FY2011 to 77.1% in FY2012. Cure rates improved from 65.9% in FY2011 to 69.0% in FY2012 for new ss+ve cases (**Figure 8**). Reasons for the targets not being met include the high defaulter rates, high death rates and high number of patients transferred out.

For Retreatment SS+ cases, the outcomes have improved slightly compared to FY2011, although still low. TSR showed a slight improvement from 59.4% to 61.4% in FY2012, while Cure Rates improved from 48.3% to 54.1% during the same period. Efforts to improve the high defaulter rates include funding NGOs to trace defaulters and conduct contact tracing. The high death rate in Sekhukhune was investigated; late presentation of patients in hospitals results in a significant proportion of patients dying before treatment is initiated. An evaluation of the high mortality reported in Sekhukhune was conducted. From the preliminary findings, most deaths occur in hospital, within 30 days of starting treatment and affects co-infected patients who are not started on ART on time. Further information on the study is in the M&E section of the report.

Figure 8: Favourable outcomes for new Ss+ve cases- Jan 2008-June 2011



Figure 9: Favourable outcomes for Re-treatment cases- Jan 2008-June 2011



3.2.3 IR 2- Increased availability of TB services

3.2.3.1 Capacity Building

USAID TB Project continued its collaboration with NTCP and other training partners through the National Training Task Team, which was constituted to address the following:

- Develop standardized training material for health care workers
- Plan and monitor training of provinces on new guidelines and newly developed algorithms. The USAID TB Program hosts and has Advisors participating in the Task Team.

The Training Task team developed and conducted these national trainings:

- GeneXpert Trainings, which incorporated the PHC TB/HIV TB/HIV integration manual as well as updates in the TB management guidelines
- TB and HIV Care and Management for Health Care Workers

During FY2012, the USAID TB Project has been involved in a number of trainings and conducting workshops in collaborations with the Provincial Departments of Health (PDoHs) and other stakeholders throughout the supported districts. As part of increasing stakeholder involvement in the TB program, the project also conducted Basic TB management training for Life-Occupational Health in Nkangala district, a private health care provider.

Capacity building was extended to CHCWs and grantees as part of strengthening health system as part of the PHC reengineering program. Basic Project and Financial Management

training was jointly conducted with the IUATLD to NGOs. The aim was to capacitate grantees as a means of ensuring sustainability on the following:

- Project management skill to enable them to manage their workplan to show results
- Financial management

In collaboration with our partner IUATLD, the following trainings were also conducted in FY2012:

- MDR TB Clinical Management Master trainer program was conducted to capacitate seven clinicians in five provinces; Gauteng, North West, Northern Cape, Free State and Eastern Cape Province. A total of 59 doctors have been trained to date. The master trainers were able to train an additional 120 clinicians on Clinical MDR TB training.
- Strengthening TB/HIV Collaborative Activities in Districts was offered to 10 priority districts. The training target was TB and HIV managers at district level to capacitate them in Programme management skills. The participants have developed plans which are being monitored.

A total of 7,335 HCWs and community workers were trained in FY2012 all nine provinces. 3,542 trained under Trainet, while a further 3,854 were trained under PEPFAR.

Table 3 shows the training numbers disaggregated by gender, province, districts and funding source.

Table 3: USAID Training Numbers By District/Province And Funding Source

Quarter	Males	Females	PEPFAR	USAID	TOTAL
Oct – Dec 2011	432	1483	1147	768	1915
Jan – March 2012	212	1607	1135	684	1819
April – June 2012	293	1613	713	1193	1906
July – Sept 2012	242	1453	798	897	1695
TOTAL	1190	5758	3854	3542	7335

Capacity Building for CHCWs and Grantees

The USAID TB project identified gaps in the knowledge of TB among the organizations receiving grants through the project's small grants program, especially smaller community based organizations. This has affected implementation of the grantee workplans. A gap in project management and financial management was also identified, which increased the risk compliance for the grantees to manage their project both technically and financially. Training packages for Community Based Organizations (CBOs) were developed and training conducted.

An online training package was also developed and piloted through the project's webpage. The aim of the training is to enable grantees to access information within their offices and homes to improve their knowledge and skill. This will in turn improve the quality the work they have been funded for, as well improve output for the project. The following modules are included in the online training:

- Basic TB management
- Financial Management
- Project Management

3.2.3.2 TB/HIV Integration

Improve mechanisms for TB/HIV collaboration:

Quarterly TB/HIV improvement collaborative and review meetings were conducted in all the supported districts as part of QI initiatives. In UMgungundlovu, a TB/HIV Indaba was conducted; the purpose being to improve TB/HIV implementation in the district. The indaba was attended by all sectors, including private practitioners and doctors in the public sector. The challenges including low IPT uptake, CPT uptake and ART uptake were discussed and intervention plans developed. To sensitize other sectors in incorporating TB in the HIV services, advocacy meetings and workshops were attended, where presentation on the USAID TB Program and the role sectors can plan were discussed. Some of these activities are the Traditional Health Practitioners Summit in KwaZulu Natal, SABCOHA TB/HIV Strategy launch in different provinces. These are discussed under IR5 below.

Quarterly TB/HIV collaborative workshops were conducted in supported districts to ensure that there is collaborative implementation and planning of activities in different facilities to track progress and provide in service training and coaching.

Decrease the burden of TB in HIV clients:

Intensified Case Finding – A total of 319,199 clients were diagnosed with HIV in FY2012; 85,205 of which were in Q4/2012. TB screening was conducted for more clients than those who are HIV positive, (678,017). In some of the districts, segregation of TB screening by HIV status is still a challenge. This has resulted in more clients screened for TB compared to the HIV clients. Five districts have reported a TB screening rate of more than 100% (number HIV clients screened for TB/total HIV clients), compared to eight in Q2/2012. These districts are EThekwin, Fezile Dabi, Zululand, Umkhanyakhude, and Waterberg. The districts have been supported to analyse and run DHIS reports to improve data quality.

Support IPT implementation - In April-June 2012, a total of 23,002 HIV clients were put on IPT, half of what was reported in Jan-March 2012 (**Figure 10**). Challenges identified include recording, and resistance from health care providers.

The project continues to supply IPT follow up registers to improve recording and monitoring of patients on IPT. A project to evaluate the impact of the IPT register implementation was conducted in Sedibeng District. Data will be collected in Q1/2013. The evaluation will be used to influence IPT program management nationally.

Implementation in Eastern Cape - the IPT registers developed in the Eastern Cape were finalized and are in print. The USAID TB Project jointly with the Eastern Cape DoH will monitor implementation. Training of facilities on the use of the IPT register is planned for next quarter. Increasing trends for IPT implementation has been observed in Motheo, Waterberg, and Gert Sibande, while Sedibeng, Zululand, UMgungundlovu, UMkhanyakude, Amathole and EThekwini have decreasing trends. **Figure 11** illustrates Motheo which is performing well on IPT implementation, while **Figure 12** illustrates which is not performing well on the same indicator. From the graphs it is evident that EThekwini has not been performing well, while Motheo is generally improving in performance. EThekwini district has not had adequate support due to cancellation of contracts for facility coordinators in December 2011; however, appointment of nurse mentors was made in June 2012 and intensive support will continue to be provided.

Figure 10: IPT Uptake in USAID TB Project supported districts: FY 2012

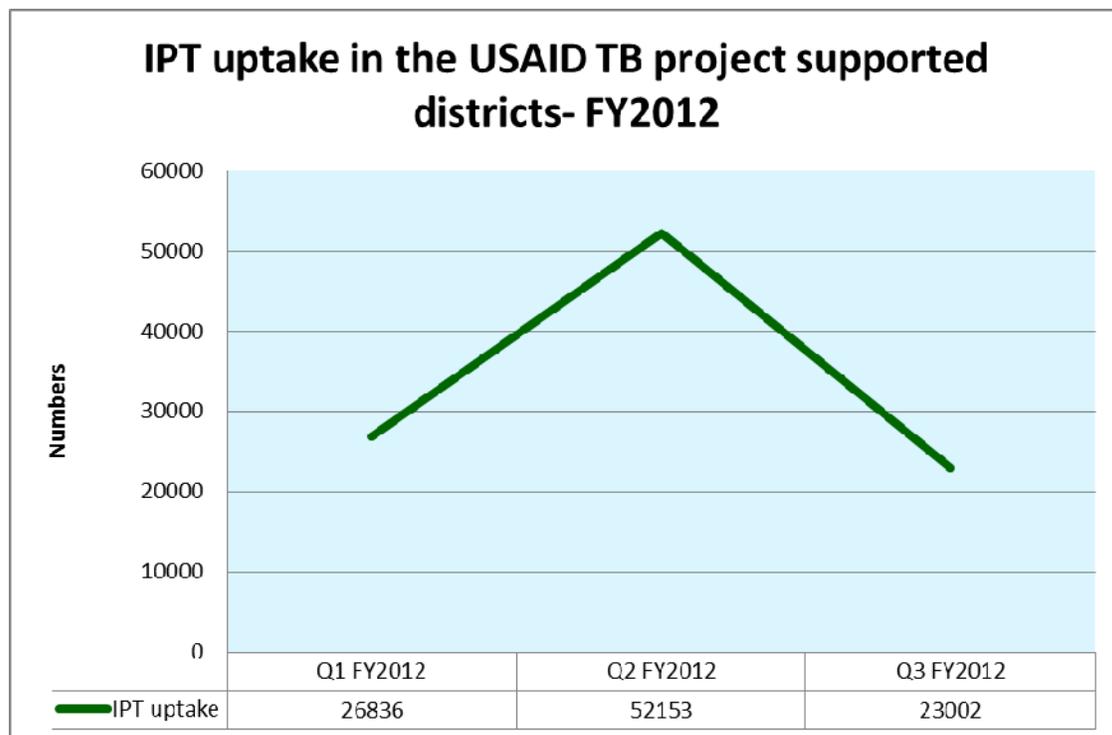


Figure 11: IPT Uptake in Motheo districts: FY 2012

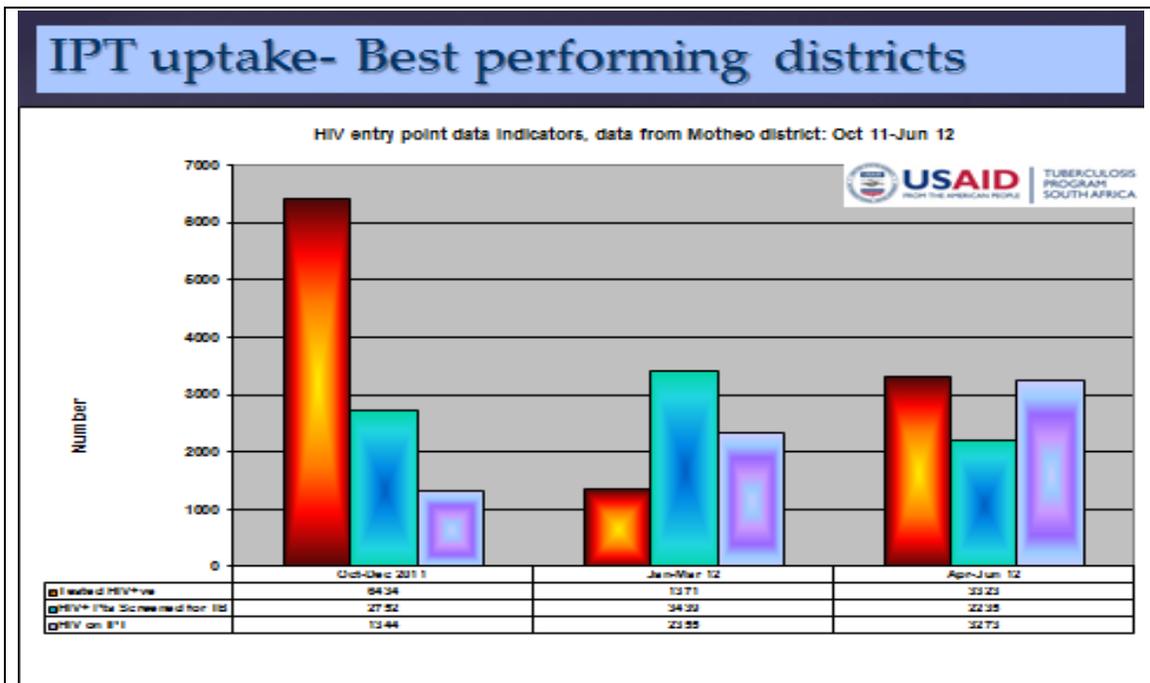
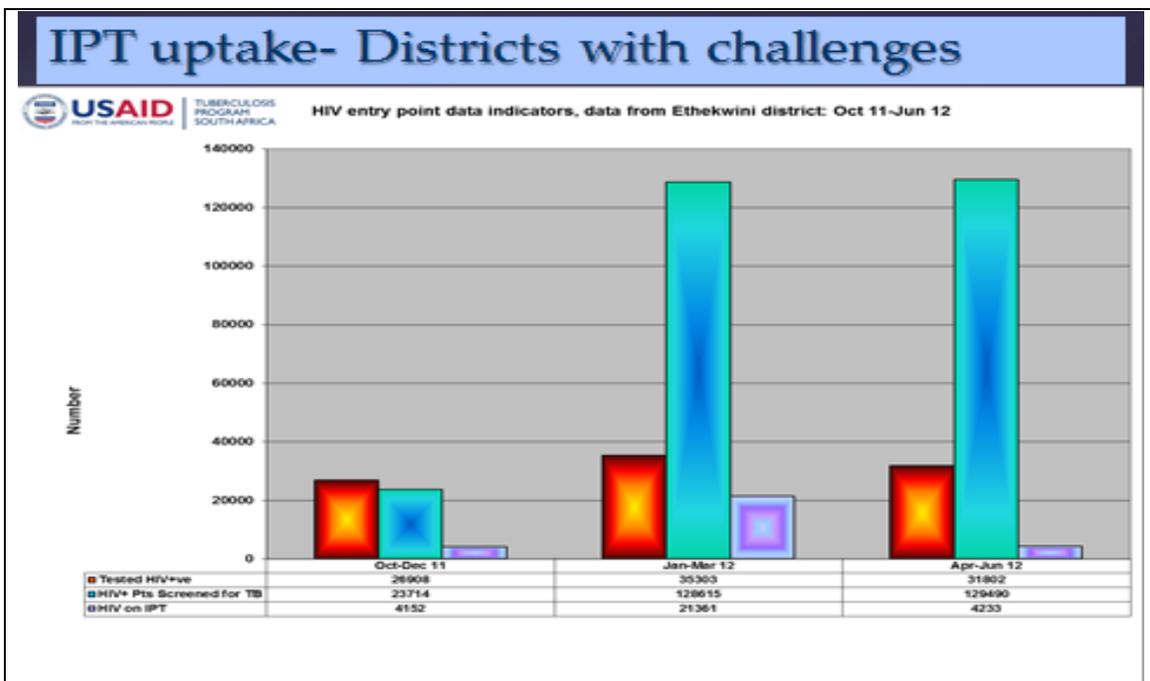


Figure 12: IPT Uptake in EThekweni district: FY 2012



Decrease burden of HIV in TB patients: In FY2012, a total of 127,786 TB patients were registered, 105,656 (84.6%) of which have their HIV status recorded; slightly higher than the 82% reported in Q1/2012 (**Figure 13**). Only five districts have achieved the target of 90% for HIV testing among TB patients, while ten districts have HCT uptake > 80%. These are:

Amathole, Tshwane, Sedibeng, Gert Sibande, Nkangala, Zululand, Umkhanyakhude, UMGungundlovu, Motheo, Lejweleputswa, Waterberg, Xhariep, Thabo Mofutsanyane, Ventersdorp, Siyanda and Fezile Dabi. In Greater Taung, the proportion of TB patients with HIV status recorded dropped from 85.7% in Q3/2012 to 45.7% in Q4/2012 due the data quality challenges. The other districts performing 10% below target are EThekwini, NMBM, Mafikeng, Sekhukhune, and Matlosana.

The co-infection rate is high, with 57.5% reported as HIV positive. Uptake of Cotrimoxazole prophylaxis (CPT) has dropped in most of the supported districts. In North West Province, stock outs of Cotrimoxazole have been reported for the past 6 months, resulting in low CPT uptake. The incomplete data in North West has also resulted in low performance in all indicators. Six districts have CPT uptake of less than 70%; Mafikeng, Umkhanyakhude, Zululand, Gert Sibande, EThekwini and UMGungundlovu. A data validation exercise in UMGungundlovu revealed that the performance might be higher than the reported. From the exercise, it became apparent that there are data sources which are not being used for capturing progress. CPT uptake was 81% compared to 52.6% (see IR 5).

Figure 13: TB Entry Point- Reducing the burden of HIV in TB patients

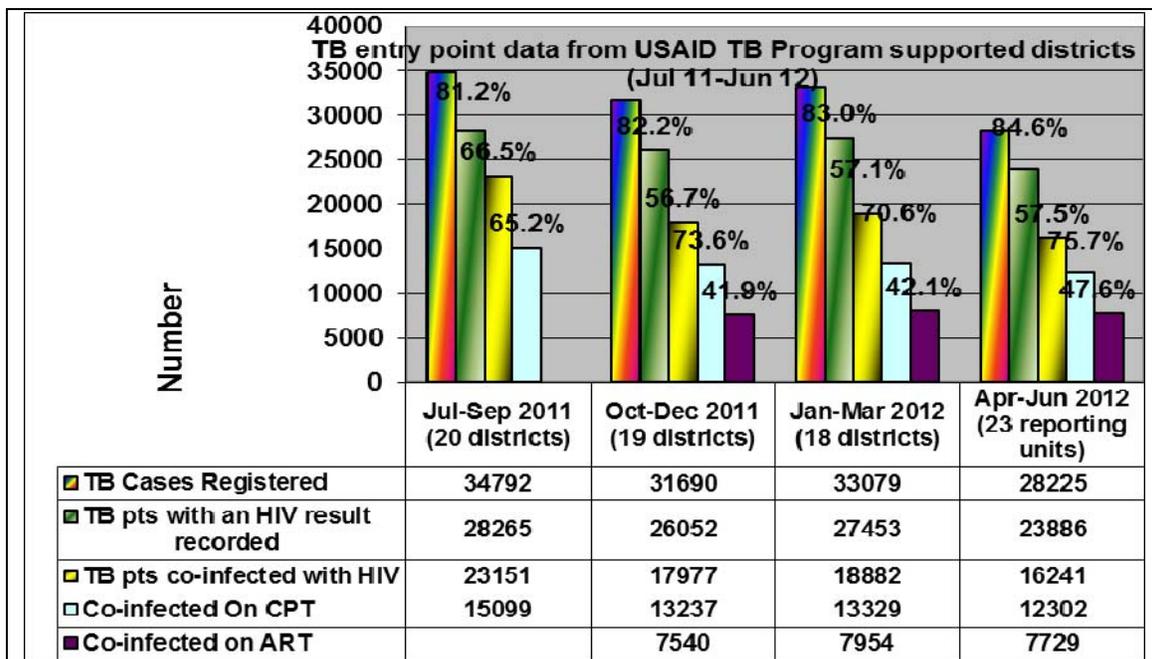


Figure 14: CPT Uptake among co-infected patients in Sedibeng district

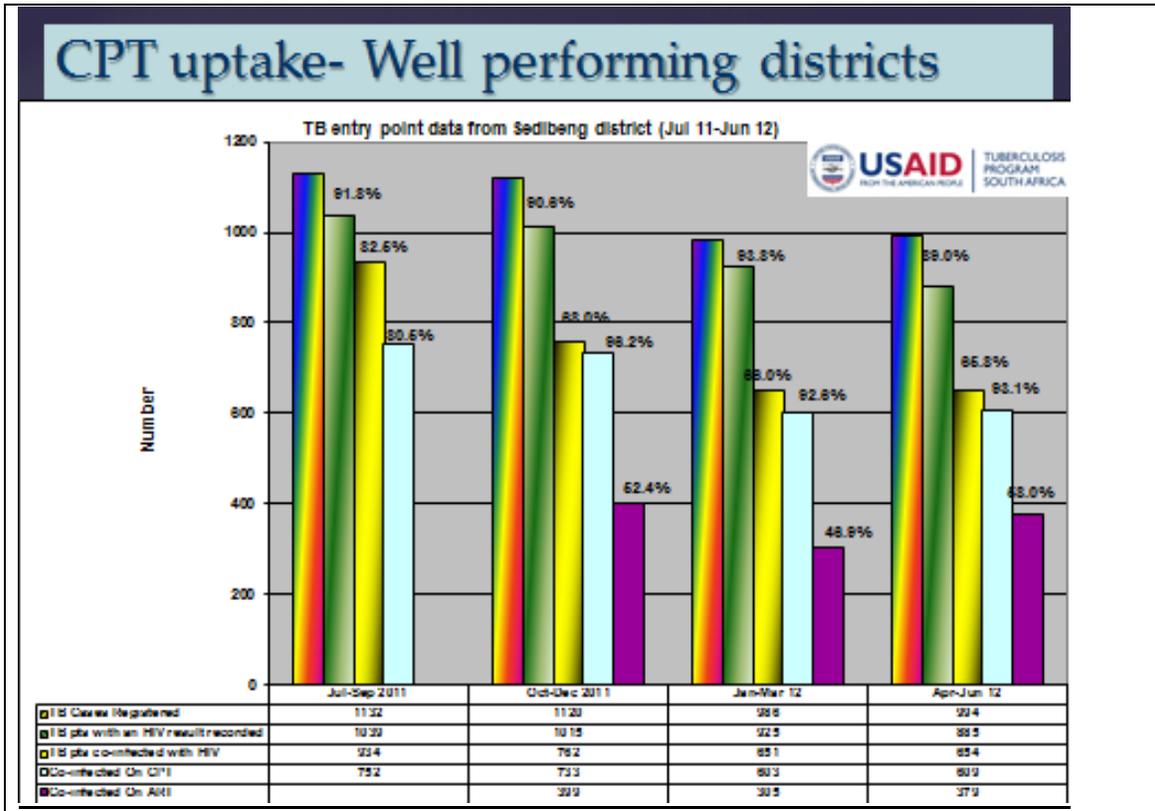
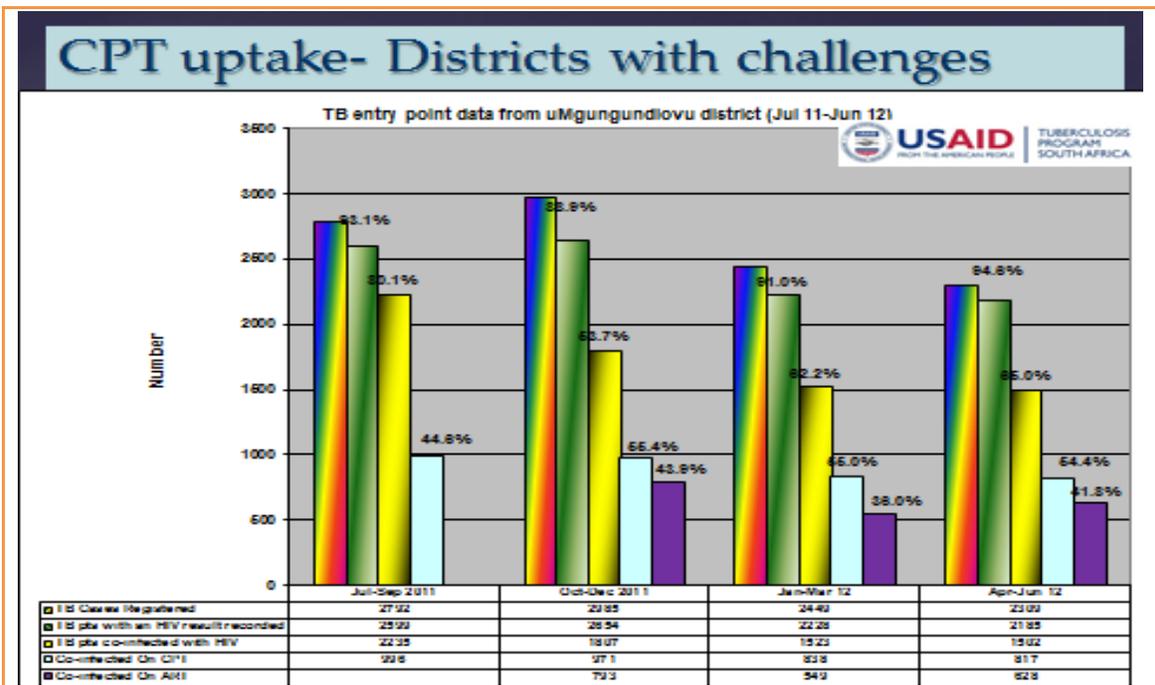


Figure 15: CPT Uptake among co-infected patients in UMgungundlovu district



ART Access: ART uptake remains a challenge in South Africa. The reported ART uptake was 47.6% in the supported districts. Four districts/ sub districts performed well in terms of ART uptake with a value > 60%: Matlosana , Ventersdorp, Nkangala, and Thabo Mofutsanyane. Six districts showed ART uptake below the rate for all the supported districts (47.6%): eThekweni, Lejweleputswa, Tshwane, UMGungundlovu, Waterberg and Amathole.

Figure 16 depicts the progress in ART uptake among TB/HIV co-infected patients in Motheo district, one of the districts performing well on ART uptake, with improvements from 40.3% in October-December 2011 to 69% in April to June 2012. The improvements followed intense training, in service training conducted. **Figure 17** depicts EThekwini district, where data challenges have resulted in the district reporting a 10% drop in ART uptake in April-June 2012 compared to 47.4% reported in October - December 2011.

Figure 16: Proportion of TB/HIV co-infected patients on ART in Motheo: July –Dec 2011

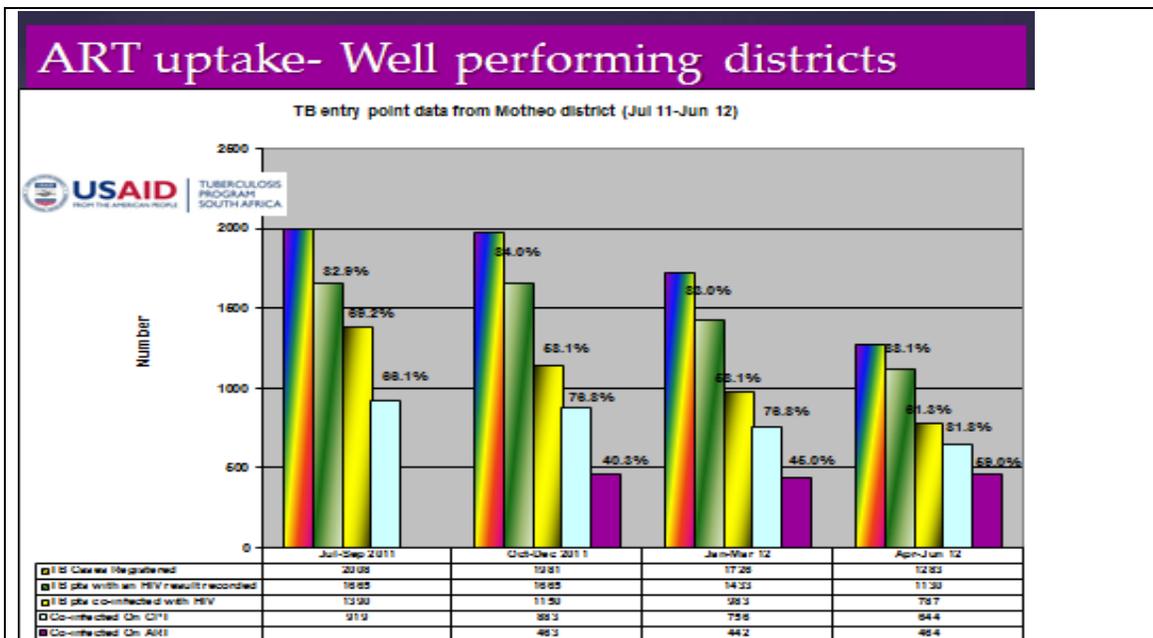
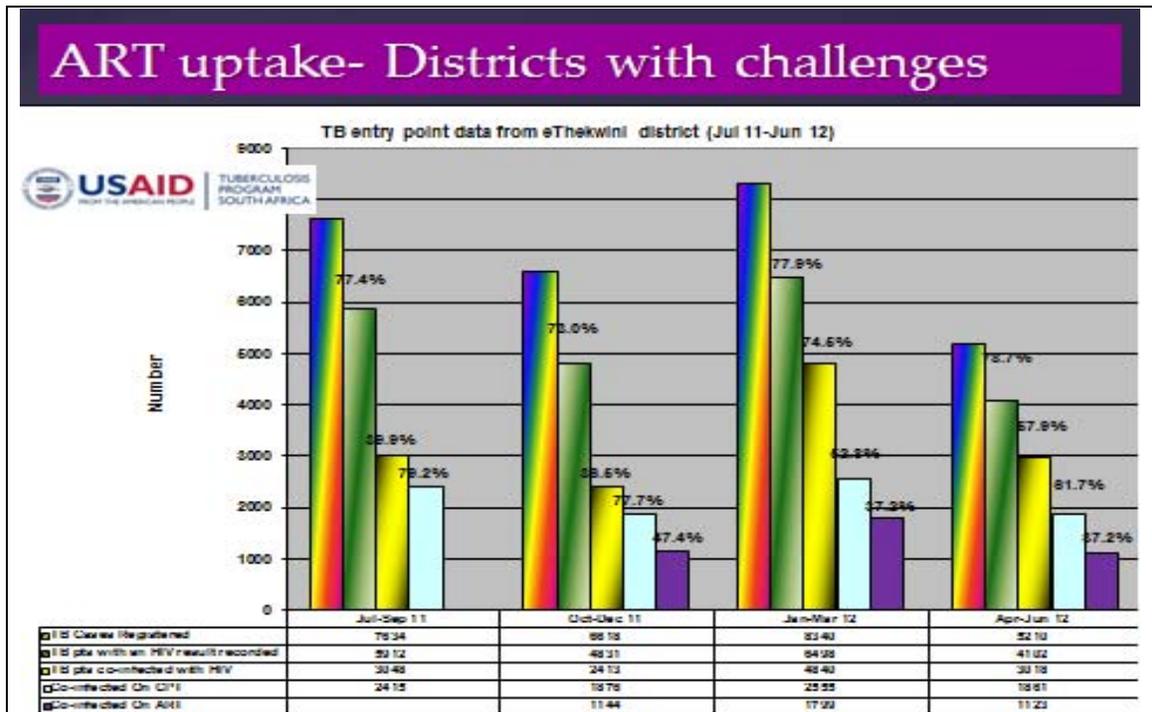


Figure 16: Proportion of TB/HIV co-infected patients on ART in EThekweni: July –Dec 2011



Implement IC and prevention in facilities: In an effort to expand implementation of IC in the community and protect CHCW, training on IC was extended to grantees. Some of the findings from the assessments include the following:

- Lack of IC Plans;
- Non-utilization of N95 masks
- Poor ventilation of waiting areas
- Lack of IC responsible person
- Lack of IC committee

3.2.3.3 MDR TB Management

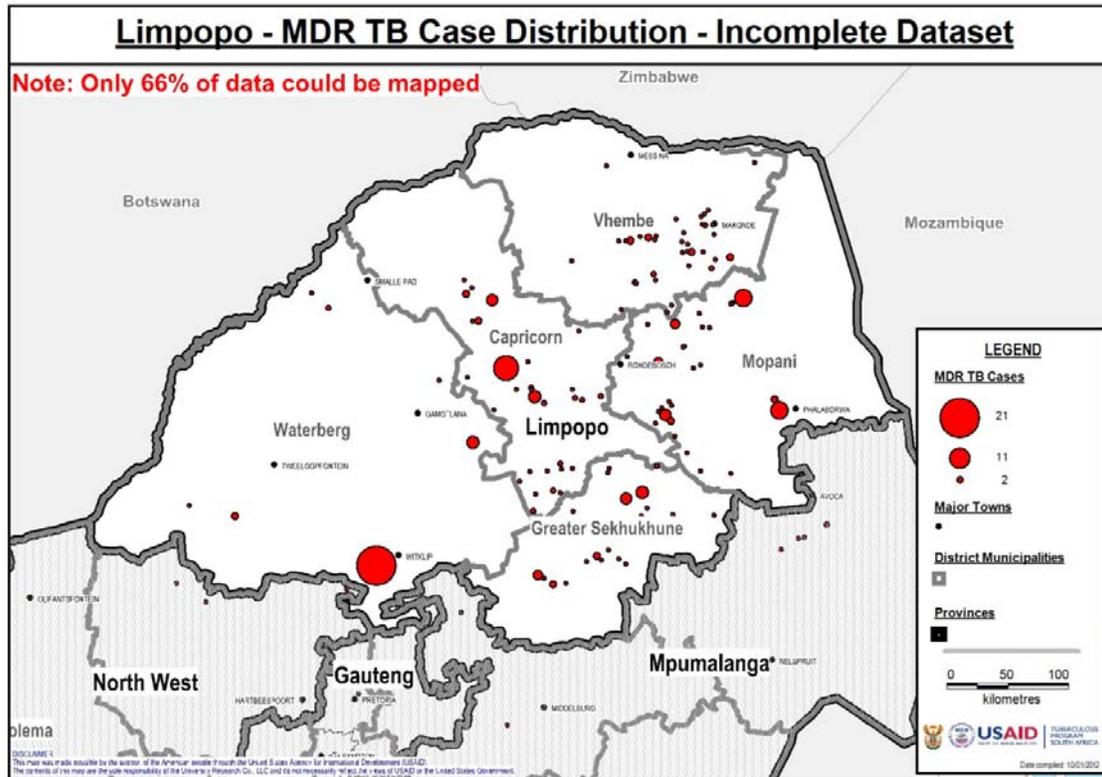
MDR TB data is reported by 22 MDR TB units utilizing the EDR.net register. Following the introduction of decentralized sites, there are 11 newly established decentralized and satellite MDR TB units reporting manually. A total of 6,317 MDR TB cases have been reported in 2011, lower than the 7,057 reported in 2012. The decreasing trend is observed in all provinces since 2009.

To ensure that guidelines are implemented, training has been provided to health care workers on MDR TB Clinical management. The course has been provided by the IUATLD, and is being locally cascaded following a successful training of MDR TB Training of trainers. The training is covered in detail in *section 3.2.3.1 Capacity building*.

During Q4/2012 the support provided to the DOH continued on implementation of c-MDR TB with the last of the workshops conducted in Limpopo Province, where 80 managers/ doctors and HCWs, representing all the districts in Limpopo attended.

All the districts in Limpopo have submitted their c-MDR TB plans. The Waterberg and Sekhukhune districts were provided with follow-up support by Philanjalo to ensure that the plans are implemented. The map in **Figure 17** shows the distribution of MDR TB cases in Limpopo, highlighting Waterberg as an area requiring intense support with hot spots in the mining area.

Figure 17: Spatial map depicting MDR TB case distribution in Limpopo



Seven Provinces covering 38 districts have been able to attend the workshops. These seven provinces have also prepared plans, which have been approved. Situational analyses have been conducted in a total of 15 districts in six provinces. Challenges identified in the sites include the following:

- Infrastructure resulting in Infection Control challenges
- No allocated/identified tracer teams (Mpumalanga)
- Drug stock out for second line drugs in Limpopo and Mpumalanga
- Poor contact management
- Long sputum Turn Around Times

The reports were shared with the specific provinces to ensure that there is follow up of specific issues.

Following the c-MDR TB workshops and implementation of the c-MDR TB plans, five districts have started following patients in the communities through injection teams. Support supervision visits were conducted to Uthungulu and Zululand districts to assess and mentor them on c-MDR TB support. **Table 4** gives an indication of the gaps in data from the mobile

Table 4: Patients followed up in the c-MDR TB programme

District	MDR/XDR followed in community	# injection mobile teams	% provided with monthly sputum	Contact tracing performed	%HIV status	#HIV positive	% on ART	Comments
UThungulu*	426 MDR 43 XDR	18 with 10 cars	100%	yes	N/A	N/A		Mobile teams not performing HCT
Zululand^	191 MDR	12 with 10 cars	100%	No	N/A	N/A		Idem as above
Amathole~	275 MDR	One for sub district	100%	yes	94%	164		
OR Tambo	104 MDR	One for sub district	83%	1286 contacts screened	99%	86	88	
Chris Hani	75 MDR	One for sub district	95%	81 Contacts screened	100%	36		

teams due to lack of standardized reporting tools.

The following challenges in monitoring of activities have been identified:

- Lack of standardized tools for patients follow up and reporting.
- Lack of standardization of activities, with some of the teams providing contact tracing while others are not routinely providing this.
- Lack of training on MDR TB of both health care workers and community workers
- Except for Amathole district, there is no standard formula of determining how injection teams should be allocated.

Provincial support

Support was provided by the MDR TB and IC Advisor to the Eastern Cape Province. Progress on c-MDR TB and MDR activities was discussed. Key issues discussed:

The Clinical review of patients highlighted challenges with implementation of guidelines; GeneXpert is used for monitoring patients, with 15% of patients not having monthly smears collected for culture. Results from the GeneXpert provide contradictory results which are confusing to health care workers. This is being followed up by the Laboratory Advisor. Training of doctors and nurses on MDR TB management is planned for FY2013.

In Eastern Cape Province, challenges have been experienced in the allocation of tracing teams. The project has developed a tracking template that can be used to allocate tracing teams based on the hot spots where patients are concentrated.

The project attended the district monthly MDR TB meeting, where progress reports on implementation of community based MDR TB treatment were shared. PHC supervisors gave feedback on the referral of patients from the DR TB unit to PHC level. The following achievements and challenges were discussed:

- Cacadu district identified a need for training of doctors, preferably on-site training as the facilities are far apart and most of the areas served are rural. Training has been planned for NMBM district.
- In the clinical reviews discussions, it became evident that Jose Pearson TB Hospital has a challenge; 79 of the patients are on palliative care without proper follow up the TB tracer teams. The matter will be further discussed at the next clinical review meeting.

3.2.4 IR3- Increased demand of TB services

In FY/2012 the USAID TB Project supported the two main national events, World AIDS Day and the World TB Day. Other planned activities aimed at increasing awareness, increasing community knowledge on TB and TB/HIV through Community Dialogues, awareness campaigns, patients support groups and developing and distributing IEC material. Through mass media, the project had planned to flight three PSA local radio and television stations. The project ACSM Advisor is part of the National ACSM Task Team, which plans and organizes the major events involving TB and HIV.

3.2.4.1. National and Community Events

World AIDS Day

The SA National World Aids Day (WAD) commemoration was held in Eastern Cape Province, where most of the project national activities were focused in Q1/2012. The WAD was preceded by buildup activities in the Eastern Cape Province, including door to door campaigns, KICK TB activities, Grassroots soccer activities, and Community Dialogues. Octavovect, a grantee based in NMBM, was involved in all the activities.

Octavovect participated in the buildup activities by conducting awareness road shows in four townships, and together with the project staff, provided TB screening and rapid HIV testing together in the NMBM. The project sponsored the Road show trucks, which were utilized for the mobilization of communities. A live drama featuring TB/HIV messages was done by Impangele projects. Approximately, 10,000 people attended the WAD commemoration, where President Mr. Jacob Zuma launched the National Strategic Plan 2012-2016.

World TB Day

The theme for World TB Day was on mining sector. The build-up activities included “Hit the Road Walk for Humanity,” a new concept in which the Minister of Health and TB Ambassador Gerry Eldon, the National TB Ambassador walked through provinces to raise awareness on TB. The commemoration was hosted in Carletonville, a mining town where the Deputy President launched the implementation plan of the NSP 2012-2016.

Kick TB Activities: Through the Kick TB campaign school activations were ran in three provinces (Free State, Limpopo and North West) with USAID TB providing prizes (lunch boxes, bags, jackets, umbrellas and balls) to learners. The total number of learners reached now stands at **85 998**. www.kicktb.co.za

Community Dialogues: The concept of community dialogues is aimed at building social cohesion and communities’ response to key issues around TB and TB/HIV. A total of 5 community dialogues were conducted in KwaZulu Natal (2), Eastern Cape, Mpumalanga, and Gauteng.

3.2.4.1 Mass Media

‘We Beat TB!’ PSA: As part of the ACSM strategy, a mass media campaign called We Beat TB! was launched in FY2011. During FY2012, three television public service announcements (PSAs), were produced in several languages, and broadcast on television for the period leading to World TB Month (March 2012):

1. Infection control - open windows and cover cough
2. Treatment adherence - take 180 doses to be number one ok!
3. TB/ HIV - TB is curable - even if you have HIV

The new PSA: Cough Etiquette: Following the new cough etiquette guidelines, activities in Q3/2012, focused on the production of a new PSA specifically talking to the new coughing guidelines. The main message is: *To get people to cover their cough with an elbow and not use their hands.*



To raise awareness on WHO’s new cough guidelines a public service announcement (PSA) was launched towards the end of September on 3 of the main television channels in South Africa: SABC (Public Broadcaster) 1 and 2; ETV (Independent Channel), DSTV, and a number of National Radio Stations.

The broadcast is scheduled in two bursts: **September – October 2012** and recurring in **November leading to World AIDS Day**. The second burst will coincide with themed community activations linked to the USAID TB **3Is** strategy - a district focused approach to strengthen health systems.

The project also continued to support dissemination of TB technical information and sharing of best practices and success stories through the project’s website, tbsouthafrica.org. Efforts were continually made to ensure that information provided through the website remained fresh and up-to-date. The following table provides information about use of the website and web resources during the year.

Table 5. TB Project website analytics, Oct 1, 2011- Sept 30, 2012

Visits	4,838
Visitors	3,329
New Visitors	68%
Pages Viewed	11,550
Average Pages/Visit	2.4
Average visit duration	3min 1sec
Most popular pages (other than the home page):	About us, Basic TB management and treatment, Grants summary, TB Union conference Lille, Directions to project HQ office
Most popular provinces for visitors	Gauteng, Western Cape, Kwazulu-Natal, Eastern Cape
Popular search terms	TB South Africa, Tuberculosis South Africa, TB
Mobile device visits	209
Downloads	558

3.2.5 Small Grants

During FY 2012, the project had planned to provide funding for 27 NGOs. A total of 17 NGOs were provided with funding for 19 projects in eight provinces. The projects focused on tracing defaulters, contact tracing, ACSM activities, TB screening and providing treatment support for TB patients. One project focused on the rollout of the community management of MDR TB patients. A total of 10 NGOs have been approved for Wave 3, bringing the total number of NGOs funded to 27 by September 2012.

The small grantees achieved a number of notable successes during the course of the year. The Impangele Drama unit, a grantee based in KwaZulu Natal and Eastern Cape, produced and played drama with TB/HIV messages in 20 community radio stations in the two provinces, reaching 1,03050 listeners.

A total of 35,460 community members were reached through the ACSM activities, while 23,435 were screened for TB. From the 3,373 TB suspects identified, 214 were confirmed to have TB and started on TB treatment. One thousand one hundred and ninety one (1191) TB patients were registered under the DOT program and provided with treatment support, and 2,559 defaulters traced back on treatment.

The project began procedures to issue a new wave of grants during Q4. Through Wave 4 grant support in FY13, the project will focus on areas with major program challenges, NHI districts and innovative PPM models to increase access of TB/HIV services in the communities. Special effort to attract projects from provinces with poor response has been made, Free State, North West, Limpopo, Western Cape and Northern Cape.

Ten organizations have been approved for funding under Wave 3. New focus areas have been funded; piloting of mentoring processes for small CBOs; innovative ACSM ideas; piloting introduction of TB Program management training into the nursing curriculum; intensifying TB/HIV services in the prison setting and expanding TB/HIV services to the close contacts of the miners living in the mining settlements.

Conduct close out visits for Wave 2 grantees

Processes for close out have been completed for 13 of the 17 projects. Three grantees will undergo the process in the Q1/2013.

Special projects undertaken by NGOs, focused on provincial needs

As part of reporting on grantees with special projects, this section outlines briefly some of the work conducted by CBOs in improving TB/HIV management within their communities.

Philanjalo ICF 11 –The Philanjalo ICF aims at conducting door to door campaign to deliver TB/HIV messages, increasing case finding providing HIV testing for communities targeting community events. The review of the project revealed that the coverage in uMsinga sub-district was probably exhausted and it is justifiable to move to a new area. The district has requested Philanjalo to expand to other sub-districts in uMzinyathi. A recommendation to submit a new proposal has been extended to Philanjalo.

Octavovect Association – The project focuses on default and contact management in NMBM: Since inception, 3386 defaulters were reported referred for tracing, 2478(73%) of which were successfully put back on treatment. A challenge with updating of the list at facility level has been discovered and is being addressed with the facility manager.

Through this activity an opportunity has been identified to conduct an operational research project on the reasons for defaulting in the selected facilities in the NMBM, looking at the retrieval rates and systems used by the organization and the affected facilities. From the data submitted, there are four facilities with consistently high number of patients who default treatment, and successfully traced back. These adherence problems can also be compared with adherence rates for ART in these facilities as the co-infection rates are quite high (>60% in some facilities)

Amakhumbuza Community Development and Health Centre – This is one of the grassroots organizations which s impacted the TB program in the supported area. The focus areas were conducting door to door campaigns, screening for TB, providing DOT support, contact and defaulters tracing. A total of 15, 123 community members were reached through the ACSM activities, with 14,921 screened for TB; 1,720 TB suspects were identified and 144 TB patients on DOT. The project has been closed out, and recommended for a follow up project to continue the activities.

Philanjalo c-MDR: The project is in year two of implementation, which focuses in providing technical assistance to the identified c-MDR sites in the districts. Twelve workshops out of the planned 16 to conduct situation analysis to assess facility readiness in the sites identifies as decentralized sites have been conducted. The provinces which are to be supported in Q1/2013 are Free State and Northern Cape.

Capacity Building for grantees:

According to the initial verification visits conducted to grantees in Q1/2012 revealed challenges in the capacity of grantees to implement project, as well as manage finances allocated for the projects. Training on Basic TB, Project and Financial management was

conducted for grantees. An online training package was developed, piloted and is now available for use by all grantees who have internet access.

As part of capacity building for NGO's and strengthening Primary Health Care re-engineering, Infection Control training was conducted for a total of 244 CHCWs. This is an effort to ensure that CCG's are informed of the infection control measure to be put in place in households, as well as protect them from acquiring TB in the household. Other trainings conducted are Basic TB management, Project and Financial Management.

(See section 3.2.3. Increased Availability of TB services)

There is a marked improvement in activities reported and verified during the close out visits to grantees. The following are the key activities noted from the reports:

- Successful establishment of support groups in nine organizations. These will be mentored and progress reported in Q1/2013.
- Conducting HCT during household visits has been introduced to four organizations which had not previously included this activity in the workplan following the Basic TB training conducted.
- In KZN, all funded grantees participated in the operation Sukuma Sakhe project, the KwaZulu Natal Premier's flagship project involving community based intervention, with the exception of Tholulwazi Uzivikele.
- A number of facilities have requested the organizations to allocate one or two CCGs at the health facilities to assist with TB activities – triaging suspects, conducting health talks at the facilities. Progress in these facilities will be monitored to track improvements.

Financial Management

The project has established a financial management and risk and compliance monitoring system. Improvements have been noted for the period June 2012 to August 2012, compared to October 2011 to December 2011 reports. Spending patterns also increased as many grantees have entered into the last quarter of their agreements. Grantees have also shown an improvement the quality and understanding of financial requirements. The overall risk and compliance to the end of August 2012 for Wave 2 grantees have improved and their risk and compliance costs incurred are now 83% fully compliant, 10% questionable and 8% unsupported under wave 2.

Total spent to August 2012 for Wave 2 grantees is approximately R17, 452,287.73 (68%) out of a total budget of R25, 567,001.27. Scheduled preparation for Wave 2 close out visits have been conducted to all nine grantees and six of these have been granted no cost extensions for one or two more months.

Eight additional contracts have been issued under Wave 3 in this quarter bring the total awarded grantees under Wave 3 to ten for a total amount of R10, 894,709. 72.

3.2.6 IR 4 Improved Management of TB Support Systems

3.2.6.1 Support to National Department of Health

The Project participates in the NTP Quarterly meetings where progress on the TB and TB/HIV Programme is discussed, challenges identified and plans for the following quarter developed. The Project is also part of the national teams which conducts provincial support

visits jointly with NTP. In FY2012, provincial visits were conducted to North West, Free State, KwaZulu Natal and Mpumalanga. The key challenges identified in all the provinces is the recording and reporting resulting in underreporting of TB cases, and poor outcome indicators.

3.2.6.2 Analysing causes of TB in children

The project supported a consultant who provided M&E support to the National Department of Health M&E unit on analysis of the current needs to improve services addressing TB in children.

The analysis of the National ETR was carried out to analyze the data related to the children aged 0 to 7 years old for 2010. Data quality check was carried out on the age estimation, as this was critical to the extraction of the subsample to carry out the analysis on children. The variable "AGE" as recorded in the ETR was validated against the age estimated from the date of birth and the date of treatment. This allowed to find out that 15% of children had their age miscalculated and to reassign them to the correct age. Validation criteria were established to assess the reliability of each variable. These were based on the fact that the data set was composed of inter-related variables with a different level of validity. The treatment outcome was cross-tabulated against the smear results at six months that is considered having a higher validity than the coded treatment outcome. There was a high frequency of "not evaluated" among treatment outcomes. Unknown outcomes were 38% at the national level, with KZN having the lowest frequency of not evaluated (23%) and Limpopo having the highest one (66%). This variability in unknown outcomes makes any comparison across provinces very difficult. The highest concentration of "not evaluated" was for children aged 0-4 years while it was much lower between 5 and 7 years of age (See Figures 18 and 19). A separate detailed report is available upon request

Figure 18: Treatment Outcomes by province, children <8 years, South Africa, 2010

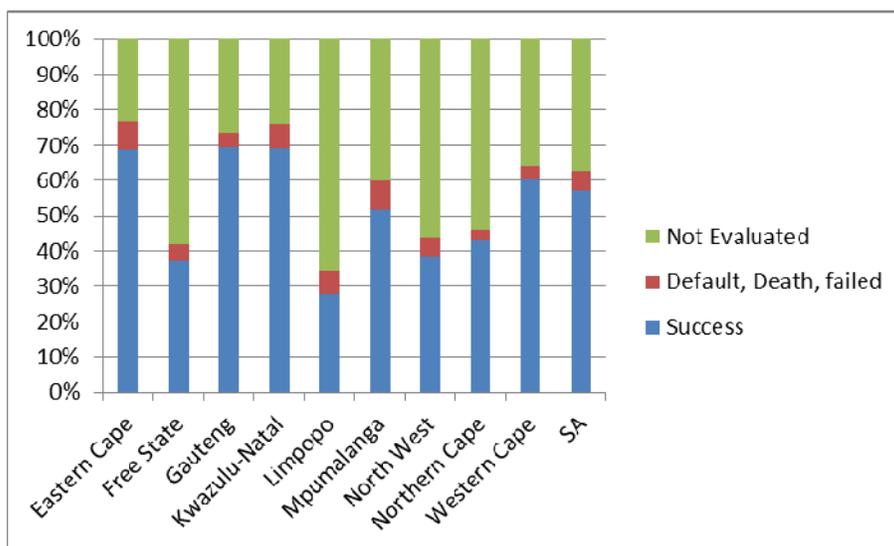
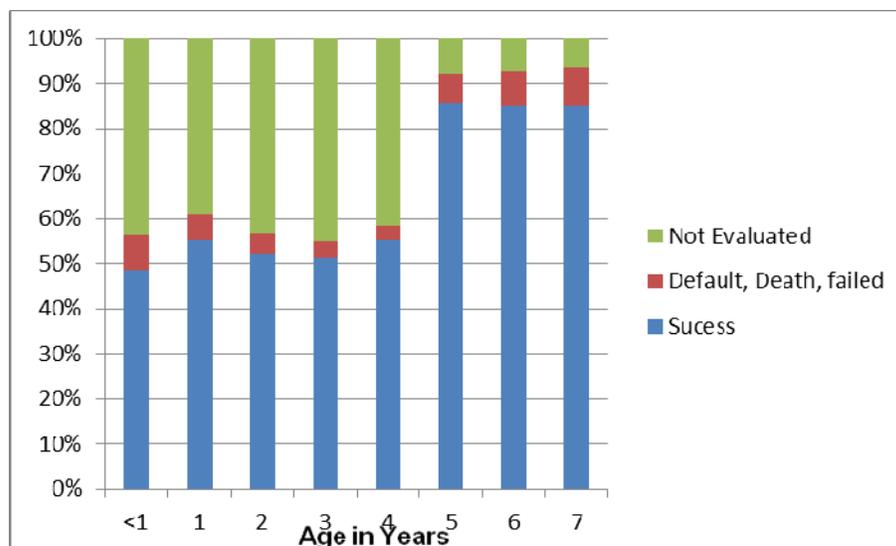


Figure 19: Treatment Outcomes by age, South Africa 2010, children <8 years, South Africa, 2010



3.2.6.3 ETR.net Support

The DoH updated the ETR.net version from version 1 to version 2 during 2012. The version 2 implementation was introduced in the provinces from July 2012, Mpumalanga Province was the first to implement version 2. The introduction of the updated electronic register was preceded by training on the new version, which the project staff attended in a number of provinces. Challenges have since been reported following the migration of data to ETR.net version 2, resulting in unreliable data report being produced. Mpumalanga province, where the training was first conducted, has been the worst affected, with no data reports submitted in this quarter. This will be covered under challenges below.

Following a data capturing activity supported by the project, improvements were noted in the report for Mpumalanga province.

In North West province, ETR.net support was provided in both Ramotshere Moilola and Mafikeng sub districts. During the support, the following factors were assessed:

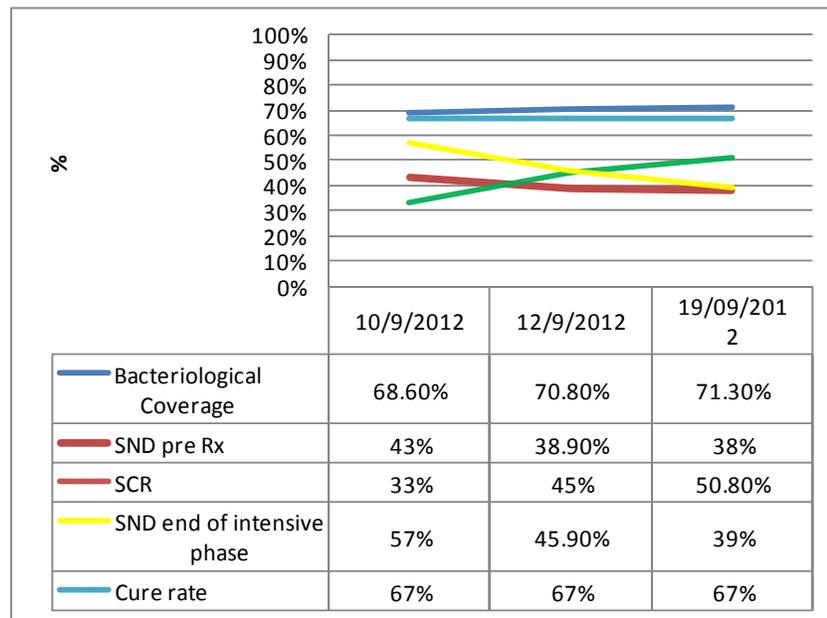
- Quality of data: Timeliness of reporting, completeness of reports,
- Filing system,
- Data flow
- Supervision of data capturers.

Different reports were generated to evaluate performance of the program. Findings are reported below:

There is no data flow monitoring system from the facility to capturing point.

- Facilities do not know what data to send, and when to send it.
- Lack of data capturing supervision at all levels: facility and sub district
- Only 28% of the 39 facilities in Mafikeng submitted data, resulting in under reporting and poor performance as indicated by **Figure 20** Data is still in facilities, even after the sub district reported.

Figure 19: Bacteriological Coverage for Mafikeng sub district – progress as capturing was conducted



Provincial, district and sub-district review meetings were conducted in all the supported districts. The meetings are aimed at review of the TB and TB/HIV Program performance, from which interventions are developed.

In Ramotshere Moiloa and Mafikeng sub-districts, the TB and TB/HIV review meetings were used to provide feedback to facility managers, and jointly plan interventions to address the identified challenges. This activity will be conducted quarterly.

In NMBM, Eastern Cape Province, a data processing meeting was conducted to address challenges identified with report in the district following introduction of version 2 ETR.net. There were discrepancies identified when reports were dispatched. The challenges resulted in the cancellation of migration from version 1 to version 2, and the challenge reported to both province and national department of health.

As part of providing support to provinces, the M&E Officer participated and is part of the M&E task team for Free State Province. The aim of establishing the task team was to improve the quality of data in Free State. The functions of the task team includes training of facility personnel on M&E, review data collection tools used at all levels, and develop an M&E training manual.

- ❖ In Mpumalanga, data verification was jointly conducted with the sub-district and district coordinator, targeting CHC's to 5 facilities. Below find some of the findings:
 - The following challenges were identified:
 - Poor recording of CPT i.e. CPT was recorded in patient's folder, under progress notes and not updated in TB register.
 - Late update or no update of ART in TB registers in some facilities.
 - Late collection of smear at the end of intensive phase
 - The following were interventions made:
 - The TB registers were checked and information was compared with patient's folders and ART registers and identified gaps were updated,

- also using the TB calendar to check to compare the patient's smear collected date with the exact date when the smear was due for collection.
- All identified challenges were discussed with the facility managers and TB focal nurses and importance of recording and reporting was reinforced

3.2.7 IR 5: Tested New Approaches for Expanding DOTS Coverage

PPM activities were scaled up in May 2012 following the appointment of the PPM Advisor. The project had aimed to support mines and private sector to integrated TB and HIV and Wellness Workplace Programmes.

The PPM focus was on the following key activities, most of which laid the ground for the 2012 – 2013 PPM workplan preparation.

3.2.7.1 Engaging the Traditional Health Practitioners

In collaboration with the KwaZulu Natal Premier's Office and Provincial AIDS Council, the USAID TB Program South Africa hosted a Traditional Health Practitioner. The summit was a follow-up activity recommended from the PCA resolution of the Council meeting held on the 7th March 2012. The resolution requires that each sector represented in the council must produce a plan of their activities for the period of the 2012-2016 Provincial Strategic Plan for HIV & AIDS, STIs, and TB (HAST).

One Hundred (100) Traditional Health Practitioners (THPs) attended the summit. A presentation made by the USAID TB Program highlighted the role of THP in integrating TB in the HIV/AIDS services currently offered by THPs. Being an integral part of the health system and cultural system in South Africa, THP present an opportunity for the TB Program to build on their existing structures and experience in implementing the HIV and AIDS program. Following on the TPH Summit, the TB Program South Africa is collaborating with THP to:

- Raise awareness among THPs to protect both THPs and clients from TB transmission
- Build THP's capacity in providing community TB education and care
- Develop relevant IEC materials to improve referrals and messages on TB collaborative bridges between traditional and modern health systems

3.2.7.2 Intensified Case Finding in Vele Mine

In collaboration with Limpopo DoH and Vele Mine, Intensified Case Finding (ICF) and HIV Counseling and Testing (HCT) campaign was conducted. This activity followed the breakfast meeting which was conducted as part of the advocacy conducted in Q3/2012. A total of 122 miners were counseled and tested for HIV, 16 of which tested positive for HIV. TB symptom screening was offered to 154 miners, with 66 identified as TB suspects. All the TB suspects had their sputum tested using the GeneXpert, and none of the miners tested positive for TB.

The campaign provided an opportunity for promoting onsite health education with focus on: causes, signs and symptoms as well prevention of TB; causes and prevention of HIV; and distribution of condoms.

Figure 20: Vele Mine ICF & HCT Campaign



3.2.7.3 Rapid Assessment for TB/HIV Services

The PPM unit developed a mine rapid assessment tool to determine the TB/HIV services in mines.

The tool was piloted and used at Ezulwini Mine in Gauteng. The tool provides baseline information on TB/HIV services provided. The following were key findings from the assessment:

- TB Screening is not done routinely
- The mine is not using National TB Programme stationary but have developed their register
- TB Infection Control measures are not being practiced
- The patient data – clinical management is reported in one of North West Hospital – Duff Scott. The Mine has contracted the hospital even the staff is from North West

As part of support to Ezulwini Mine, the USAID TB team provided information, education and communication (IEC) materials including TB Posters, New Diagnostic Algorithms, and Programme working tools (i.e. Screening Tools, IPT registers and TB diaries).

3.2.7.4 Partnership with Imbumbé Yamakhosikazi Akomkhulu

The USAID TB Project continues to find innovative means of improving access and management of TB across all level. As part of scaling up innovative approaches, a partnership with *Imbumbé Yamakhosikazi Akomkhulu* (IYA) program, and a woman led initiative comprising of the wives of the chiefs in rural areas of the Eastern Cape Province has been established. These local community leaders will be empowered with TB knowledge to enable them to influence TB advocacy and community care, especially amongst women suspected of having active TB, who tend to bear the highest burden of stigmatizing behaviors.

IYA has been provided with Infection Control Training and a risk assessment conducted at their facility.

3.2.7.5 Partnership with SABCOHA

South African Business Coalition (SABCOHA) is an entity which aims to coordinate the private sector response to HIV/AIDS epidemic. Following several meetings to assess how the two organization can collaborate, the USAID TB Project was invited to present on their mandate on a platform that attracted business and provincial leadership in four Business Strategy Launches with SABCOHA in Limpopo, North West, KwaZulu-Natal, and Eastern Cape Province. The business launches were a culmination

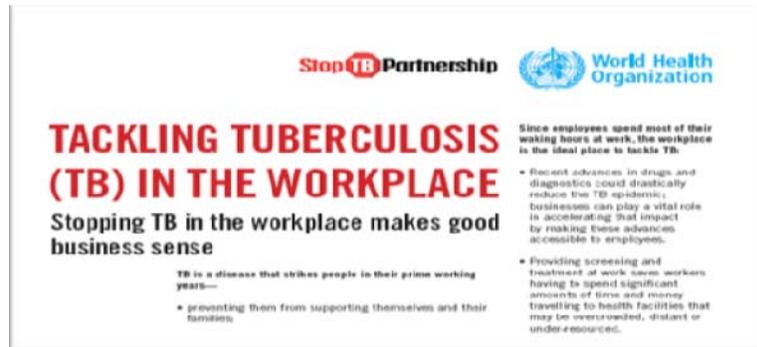


Figure 21: Excerpt from PPM presentation

of intensive stakeholder engagement to ensure a sector Implementation Plans that effectively addresses the impact of HIV, TB and STI's in the respective provinces' Business sectors and communities in which businesses operate.

The Implementation Plans forms part of the National Mandate for all business sectors in all provinces to design implementation plans in support of the objectives and interventions contained in the National and Provincial Strategic Plans for HIV, TB and STI's 2012-2016. Box 1 illustrates some of the information that was shared during the presentation.

Box 1

- Provide TB and HIV treatment and care at the workplace
- Include TB prevention, diagnosis and treatment in HIV workplace programs
- Implement comprehensive TB and HIV care programs for workers, families and communities
- **Integrating TB into the Occupational Safety and Health (OSH) is a path to Greater Ownership and Sustainability**

The project will be monitoring implementation of activities in the private sector being supported as part of increasing the availability of TB services.

3.2.7.6 Geographic Information System

To support patients' treatment supervision and support, the project used Geomapping to identify "hot spots" in Gauteng, Limpopo, North West, Free State, KwaZulu Natal and Eastern Cape. The hot spots are areas of MDR TB case concentration, which necessitates intervention to identify the reasons for the high concentration of cases in the areas. (Figure 17)

Maps have also been developed for grantees to assist in assessing gaps in allocation of funded NGOs in the supported districts to assist in identifying areas requiring support.

Evaluation of the Smartphone to monitor TB Case Finding

The project funded the implementation of the Smartphone technology through Geomed in FY2011. This was used to trace contacts of TB cases in EThekweni districts as part of the

Intensified Case Finding Strategy for NTP. The smartphone was evaluated in FY2012. Results show that out of the 6,685 TB cases registered, 9,016 household contacts were followed up in 6,685 household. Forty one per cent (41%) of the addresses could not be found. Only 57% (5,146) of contacts could be found, while 35% were either at school or work. The evaluation confirmed that the smartphone technology is a more efficient system for managing patient's information, compared to paper forms. The limitation noted was the in technical aspect as well as monitoring of the teams e.g. batteries lifespan, access to data by users and the district.

4 CHALLENGES

4.1 Administrative challenges and Problems resolution

Administrative

During the year, the project experienced some challenges related to staffing vacancies. Resignations were received from the Field Director, M&E Officer, TB/HIV Coordinator (Umkhanyakhude). Several challenges have been resolved including:

- Appointments: District coordinators for Ngaka Modiri Molema district (North West), Zululand district (KZN), Siyanda (Northern Cape) has been appointed.
- The MOU has been finalized and signed by both the Western Cape TB Directorate and Cape Winelands HAST management.
- Expansion of training activities to the project's funded NGOs in order to allow provincial coordinators to focus on activities aimed at improving TB and TB/HIV indicators in the supported districts.
- Accreditation of project training curriculum received from SAMA for Basic TB Management, Clinical MDR TB Training and Infection Control.

Remaining challenges at the end of the year include:

- The USAID TB program has not been able to appoint Provincial coordinators to support Motheo and Thabo Mofutsanyane districts in Free State and Gert Sibande in Mpumalanga, due to difficulty in finding suitable candidates despite having advertised the positions. Interviews for the Thabo Mofutsanyane coordinator have been successfully conducted late this quarter; a suitable candidate has been identified.
- There are still no TB program managers at Emalahleni sub-district in Chris Hani district, Eastern Cape. This makes support of this sub district by the project difficult because there is no DoH counterpart to plan and implement activities with.
- M&E Advisor post not yet field. Interviews conducted but suitable candidate not yet found
- TB/HIV Advisor post: interviews conducted and suitable candidate identified.

4.2 Implementation challenges and problem resolution

4.2.1 Patient Management:

Low BC coverage (High No Smears at Pretreatment)

- Low BC indicates that patients are diagnosed without a laboratory confirmation (bacteriological test), which is against the national guidelines for management and control of TB. While showing a relatively positive trend (increasing BC over time), there are four districts which still have a BC lower than 80%. These are Fezile Dabi, Zululand, Motheo and Gert Sibande. There is a possibility of further decline in Motheo and Gert Sibande, which both went without direct support for the past quarter as both provincial coordinators left their positions. However, both districts have continued to receive indirect support. A similar performance has been noted in four USAID TB program supported sub districts in North West; Mafikeng, Matlosana, Ventersdorp and Zeerust.

Interventions: The project is currently working on a TB turnaround strategy with the Motheo district TB coordinator to address the low bacteriological coverage amongst other challenges. In North West, the project is conducting TB data management exercises to improve reporting of TB data in the ETR.Net.

The establishment/strengthening of TB focal points in hospitals in these districts and sub districts will also reduce the smears not done pretreatment and improve the bacteriological coverage.

High Defaulter Rates

- Defaulter rates are still high in 8 of the USAID TB program supported districts; NMBM, Ventersdorp, Sedibeng, Siyanda, Waterberg, Motheo, Amathole and EThekwini.

Interventions: The project is identifying NGOs which can be funded in these districts to provide DOT to TB patients as well as conduct tracing of treatment interrupters to be put back on treatment. The introduction of TB appointment diaries by the project in supported districts will also reduce the defaulter rates since identification of TB patients who miss their clinic appointment will be easily done by nurses and tracer teams through the use of the diary.

TB/HIV Collaboration:

HIV care for TB/HIV co-infected patients

- Implementation of the new policy stipulating that all co infected TB patients should be initiated on ART irrespective of the CD4 count' is slow in districts. This is evident in the fact that the ART uptake amongst co infected TB patients is still very low (<50%) in 9 of the supported districts; Tshwane, Fezile Dabi, Waterberg, Amatole, NMBM, Sekhukhune, Lejweleputswa, EThekwini and UMgungundlovu.

Interventions: the project's provincial coordinators will be trained on NIMART to enable them to improve the confidence of NIMART trained nurses for them to initiate co infected TB patients on ART in supported districts.

4.2.2 Management and Information Systems

Electronic TB Register:

- The transition of districts from the older version of the ETR.Net to version 2.0 has resulted in Mpumalanga province not being able to report their TB data for April to June 2012 on time due to several reasons;
 - When data was exported to the ETR.Net version 2.0, treatment outcomes i.e. cure rates dropped significantly because a huge proportion of patients were classified as not evaluated even though they had outcomes. To rectify this problem data had to be recaptured in the older version 1.0 so that the ETR reports could be generated and reported accordingly.
- Other issues reported with regards to the ETR.Net 2.0 version are;
 - Facility reports cannot be generated at sub district level, which makes it impossible to identify poor performing facilities for targeted interventions.
 - TB/HIV information on CPT and CD4 is no longer available on the ETR.Net version 2.0.

4.2.3 Small Grants Coordination

- Close out visits to all nine grantees completing their projects between July and September were conducted late, leading to delays in initiating processes for possible follow on projects. The delay has also impacted negatively in award process for no cost extensions.

5 COMMON AGENDA ITEMS

5.1 Project Administration:

Conferences:

PHASA/Rudasa and MHealth Conference: In September the project presented papers and exhibited at the PHASA/RuDASA¹. PHASA seeks to bridge the gap between rural and urban health care practitioners while interrogating the realm of policy and practice in the health sector. The m-Health conference explored innovations driven by the use of information communication technologies (ICTs) in addressing health challenges. At both conferences USAID TB presented one of its flagship projects that use smart-phone technology as an M & E tool to support community management of TB (particularly MDR) and HIV/AIDS

5.1.1 Coordination with Local and Other Stakeholders

- The Project has contracted DENOSA to train nurse tutors in all nine provinces. The training is aimed at ensuring that student nurses are trained on basic TB and TB/HIV management as part of their curriculum.
- The Health Systems Trust has conducted training on research methodology for 67 TB and HIV programme managers in Gauteng, North West and Northern Cape Province.

The aim of the training was to capacitate managers with research skill that will enable them to identify research question that can improve the quality of TB/HIV services in their respective provinces.

- IUATLD has trained TB and HIV programme managers on the “Working together in Strengthening TB/HIV Collaborative Activities” focusing on 10 priority districts identified by the NTP.
- IUATLD trained seven master trainers on Clinical MDR TB, from which 120 clinicians have already been trained by some of the master trainers.

5.2 Key Priorities for FY2013:

IR 1

- 6.1 Develop Clinical MDR TB Training material
- 6.2 Conduct joint URC/NTCP advocacy quarterly meetings
- 6.3 Monitor TB focal points in hospitals
- 6.4 Assess impact of GeneXpert implementation in Waterberg district
- 6.5 Monitor implementation of TB Diaries
- 6.6 Monitor c-MDR TB implementation
- 6.7 Develop/adapt tools for c-MDR TB

IR 2

- 6.8 Investigate high mortality in Free State, Zululand and Sedibeng
- 6.9 Conduct quarterly national HAST forum meetings
- 6.10 Monitor NIMART implementation in TB sites
- 6.11 Train 3,500 health care workers on TB, TB/HIV, IC, MDR TB

IR3

- 6.12 Media Cough etiquette PSA
- 6.13 Conduct 5I's activation campaigns
- 6.14 Develop two PSAs-TB/HIV and TB/Alcohol
- 6.15 Fund and manage Wave 3 and Wave 4 grantees

IR 4

- 6.16 Conduct DRAT in all districts
- 6.17 Conduct TB/HIV Collaborative Workshops

IR 5

- 6.18 Develop/adapt WHO PPM Toolkit
- 6.19 Conduct Mining Summit

Annex A. Grantees Deliverables

Name of NGO	Brief Scope of Work	Deliverables
Amakhumbuzo Community Development and Health Care Centre	To conduct community outreach for TB services in Matshana Village, Empangeni – uThungulu District, KZN	Conducted community awareness activities where a total of 15,123 community members. 14,921 were screened for TB. 1,720 TB suspects were identified and sputum collected, 144 confirmed with TB. 144 TB patients on DOT
Baptist Body of Christ	HBC and DOT Support Program in Olverton, Bojanala District, NW	638 people reached through ACSM activities, 531 screened for TB
Bright Future HBC	Community Support Program for TB and HIV/AIDS clients	672 community members reached through ACSM; 422 screened for TB; 105 TB suspects identified; 38 on DOT, 6 defaulters traced back
Centre for Positive Care	Strengthen existing TB initiatives within the Elias Motsoaledi Municipality through collaboration of TB and HIV	13365 reached through ACSM; 7465 screened for TB; 1090 TB suspects identified; 335 TB patients on DOT
Mamosa HBC	TB DOT, Tracing and Home Based Care in Matlosana sub-district	1944 reached through ACSM; 955 screened for TB; 221 TB suspects identified; 74 TB patients on DOT; 53 defaulters traced back to facilities
Octavovect Association	Training, Prevention, Treatment, Care, Support & Awareness Programmes (TB-HIV) in Nelson Mandela Bay Municipality (NMBM) Eastern Cape	50 DOT Supporters have been placed in the 18 supported facilities. 5472 reached through ACSM, 7355 screened for TB, including TB contact; 942 TB suspects were identified; 618 TB patients on DOT; 2481 defaulter traced back out of 3386 defaulters referred.
Phaphamani HBC	Training, prevention, treatment, care and support and awareness program in Kabokweni, Ehlanzeni sub-district, Mpumalanga	1188 reached through ACSM activities; 617 screened for TB; 50 TB suspects identified; 15 TB patients on DOT
Philanjalo ICF 11 Project	Expansion and assessment of impact of community based ICF for HIV, TB, MDR/XDR-TB in Msinga, Umzinyathi District, KZN	3000 reached through ACSM; 971 screened for TB; 200 TB suspects identified,

Philanjalo MDR Community Management Project	MDR-TB Community management national roll out	Situation analysis conducted in 15 sites identified as decentralized sites.
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ANNEX B – M & E PROJECT PERFORMANCE QUARTERLY REPORT

Overall Programme Performance: FY 2012

The ME report will focus on main achievements in the USAID TB Project supported districts. The districts will be compared based on the time of initiation of intervention. Twenty four districts and sub districts included in the analysis were divided into four groups based on time of initial support from January 2009 to March 2012.

- ✓ Group 1: 12 districts (NMBM, Amathole, Ethekewini, Sedibeng, Ventersdorp, Matlosana, Nkangala, Sekhukhune, Mafikeng, Zeerust, Greater Taung, Waterberg,)
- ✓ Group 2: 7 districts (Fezile Dabi, Tshwane, Lejweleputswa, Gert Sibande, Motheo, Zululand, Umkhanyakhude)
- ✓ Group 3: 2 districts (Umgungundlovu, Siyanda)
- ✓ Group 4: 3 districts (Xhariep, Cape Winelands, Thabo Mofutsanyane)

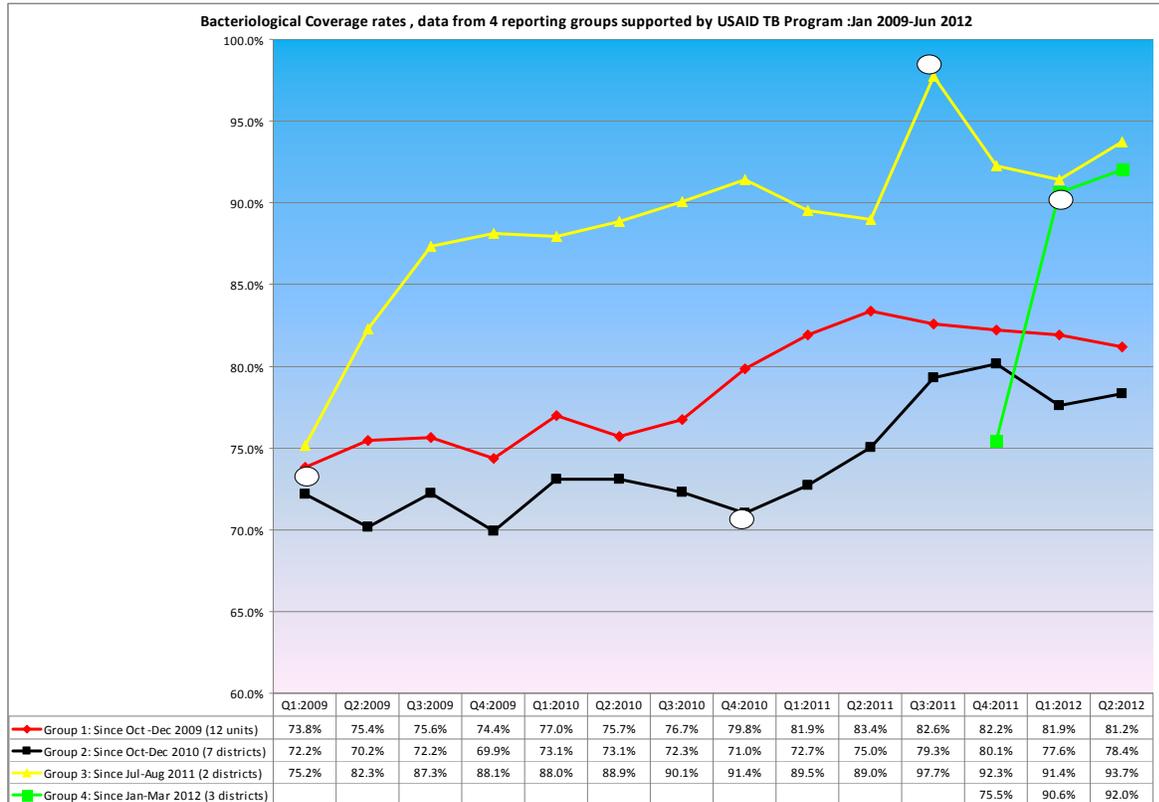
This analysis revealed the following results in addition to the data presented in the annual report.

1. Bacteriological coverage

Bacteriological coverage (BC) is an indicator which is used to monitor the use of quality diagnostics in diagnosing TB. The National DoH target is set at 100%. The overall bacteriological coverage has improved substantially since 2009, as depicted in the annual report, fig 4. The improvements have been noted in all the different groups of districts being supported, following interventions which were put in place in the poorer performing districts. Interventions put in place include: collaborative approach workshop in Gert Sibande, supporting establishment or strengthening of TB focal points at affected hospitals, data management exercise, facility support visits guided by ETR.net data, and the implementation of the appointment diary across various supported districts. In this reporting period, 7 districts had bacteriological coverage > 90% Sekhukhune, Nkangala, umKhanyakhude, umGungundlovu, Xhariep, Cape Winelands, and Siyanda.

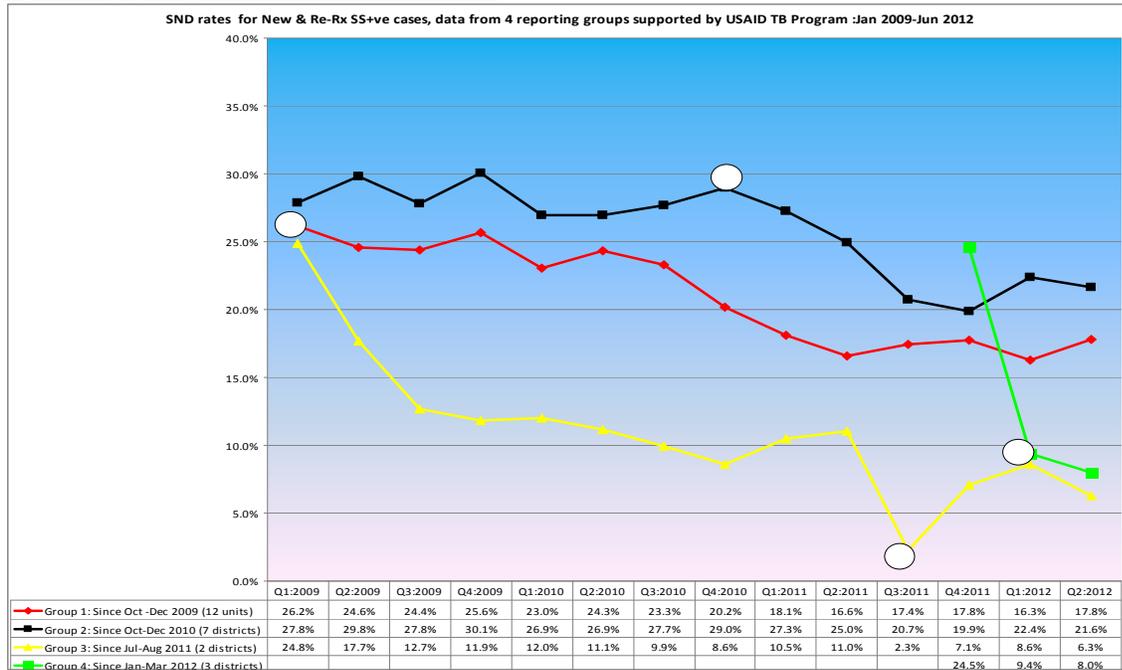
Four districts are still having BC lower than 80%: Fezile Dabi, Zululand, Motheo and Gert Sibande. All these districts are in Group 2, which is the lowest performing among the 4 groups in BC. These districts however show improving trends as per Figure 1.

Figure 1.1.- Trends in Bacteriological coverage in USAID TB project supported districts:4 reporting groups, Jan 2009 to Jun 2012



Following intervention put in place in the districts with high smears not done pre-treatment improvements have been noted, as depicted in Figure 2.

Figure 1.2 Trends in Smears not done pre-treatment in USAID TB project supported districts: 4 reporting groups, Jan 2009-June 2012



2. Smear Conversion Rates

2.1 Smear Conversion Rates: New Smear Positive TB Cases

Smear Conversion Rates for new ss+ TB cases have remained almost constant since 2009, with a slight increase in 2012 at 73% from 69.6% in FY2011. Analysis of the trends per Group show that Group 1, which has been under support for a longer period, is the lowest performing, though showing improving trends (See Fig 2.1).

Group 2 has not shown any improvement in smear conversion rates for the last 4 quarters. Districts in Group 2 include Fezile Dabi, Lejweleputswa, Umkhanyakude, Zululand, Tshwane, Motheo and Get Sibande. Only Gert Sibande, Fezile Dabi and Zululand have achieved the set target of 75% for SCR for new ss+ cases. Three of the districts are in Free State province, where there was no coordinator for the past 6 months.

Twelve districts have achieved or exceeded the target of 75%; Tshwane, Siyanda, Cape Winelands, Umgungundlovu, Fezile Dabi, Ethekewini, Xhariep, Zululand, Thabo Mofutsanyane, Gert Sibande, Lejweleputswa, and Sekhukhune; while Sedibeng and Waterberg are at 74.6%.

2.2. Smear Conversion Rates re-treatment cases

Similarly, smear conversion rates for re treatment cases have a similar trend, having changed slightly from 57.9% in FY2011 to 61.3% in FY2012 (Fig 2.2).

Performance for re-treatment cases is lower than that of new smear positive cases. A total of 7 districts have achieved the 75% target for SCR.

Challenges identified in achieving the targets for smear conversion rates are:

Late collection of smears, incorrect use of the GeneXpert machine and recording and reporting. Nkangala has reported a challenge with smears collected within a month being rejected by the ETR.net. investigation to validate this are being carried out. A full report will be reported in Q1/2013.

In service training and TB/HIV collaborative workshops were conducted for Gert Sibande district, Motheo, Nkangala. Training on GeneXpert was conducted for health care workers in all the districts.

In Limpopo, a high proportion of patients remain positive at the end of intensive phase. A plan to investigate the cause has been developed. Progress will be reported in Q1/2013.

The project has also developed an SOP to investigate and follow up management of retreatment cases to exclude DR TB. Progress on this will also be reported in Q1/2013.

Plans to improve the smear conversion rates include monitoring the TB Diary which has been introduced and follow up in service training to re-inforce the use of GeneXpert.

Table 1 shows the districts which have achieved the target of 75% for smear conversion in FY 2012.

Table 1: District which achieved target of 75% for SCR in FY2012

Districts having reached targets for 2 successive quarters or longer			Additional district having reached 75% in Q2 FY 2012
> 90%	> 85%	>75%	
Tshwane	Tshwane	Tshwane	Fezile Dabi
	umGungundlovu	umGungundlovu	Sekhukhune
	Cape Winelands	Cape Winelands	Waterberg
		eThekwini	Siyanda
			Ventersdorp
			Gert Sibande
			Zululand
			Lejweleputswa

Figure 2.1: Smear Conversion Rate New SS+ve Cases in USAID TB project supported districts: 4 reporting groups, Jan 2009-Mar 2012

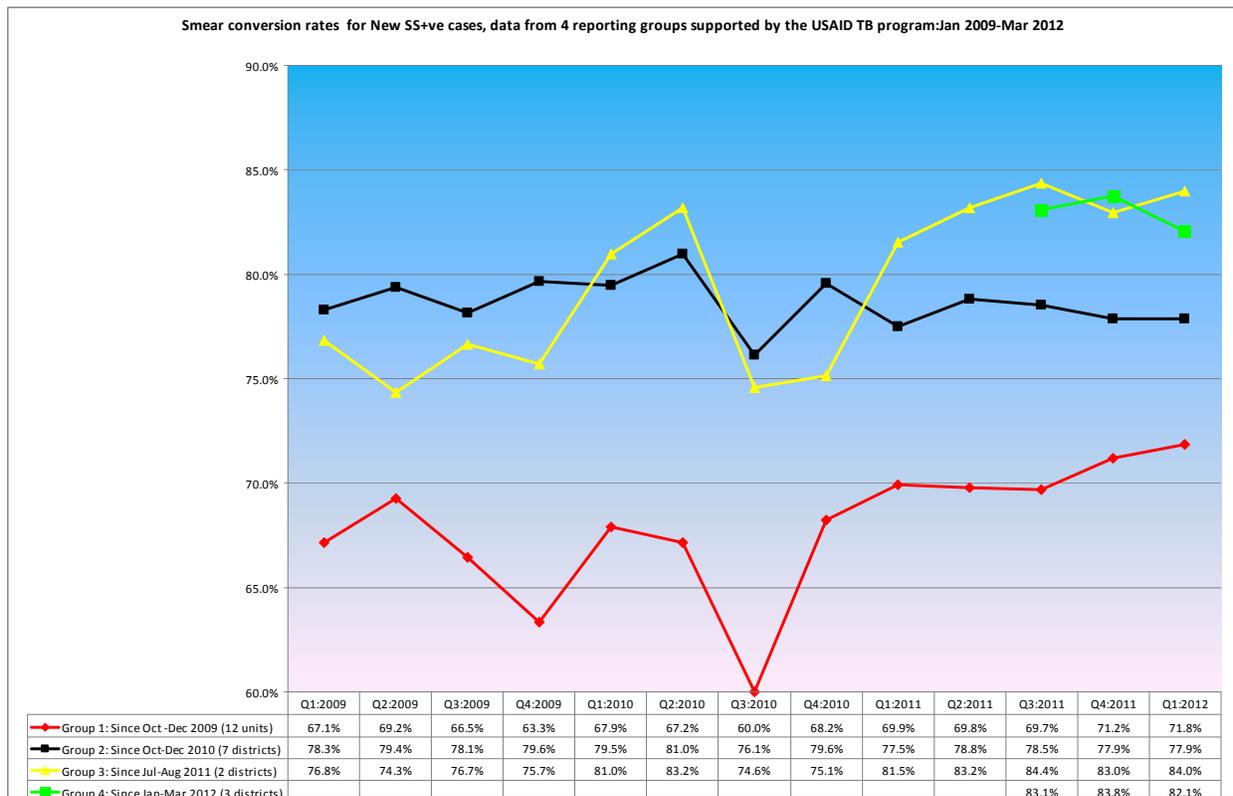
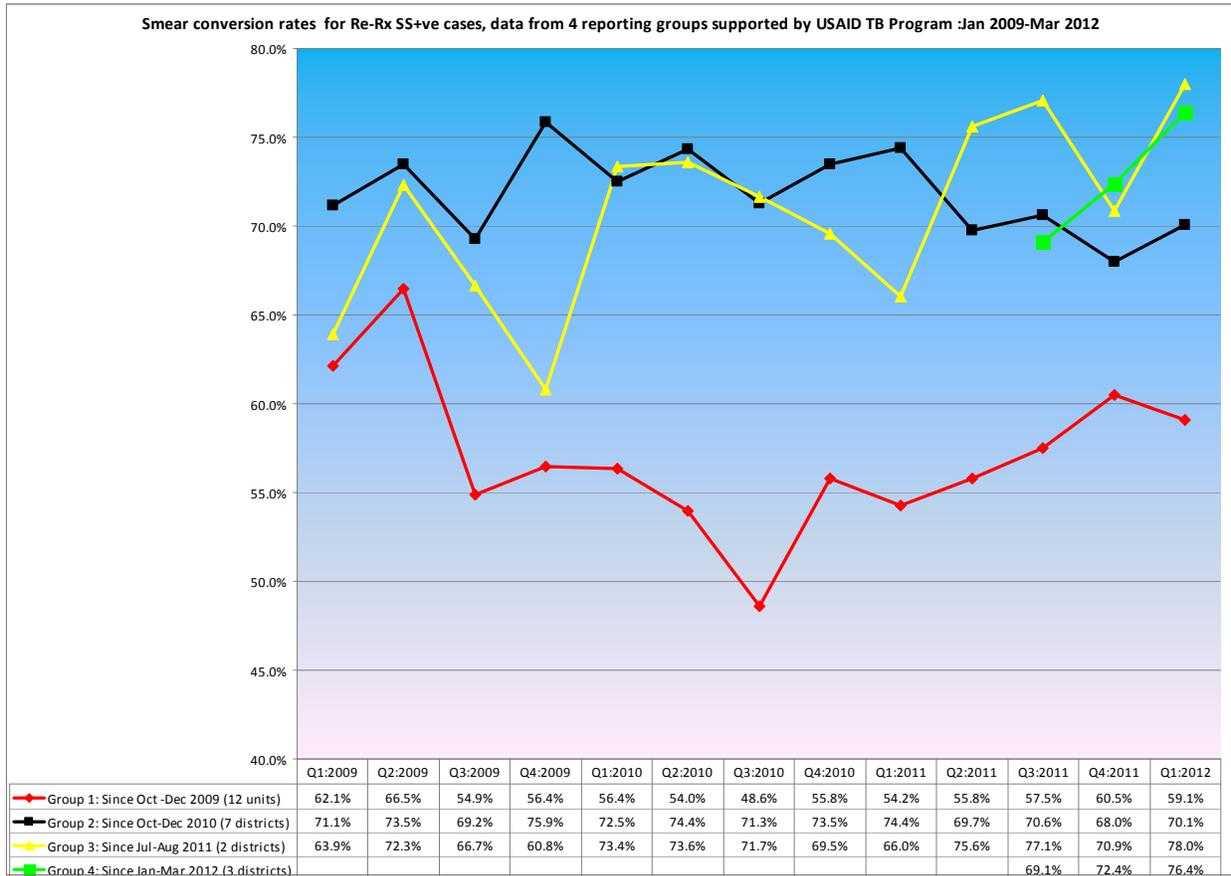


Figure 2.2: Smear Conversion rates for Re-treatment cases in USAID TB project supported districts: 4 reporting groups, Jan 2009- March 2012



3. Treatment outcomes

Improvements have been noted in treatment cure and success rates in the supported districts, with a clear increase of cure rates and a narrowing of the interval between the 2 rates, an indicator of better program performance, as shown in the annual report.

3.1 Cure Rates (Target 75%)

Improving trends have been noted in treatment cure rates reported. Cure rates for new SS+ve cases improved from 65.1% in FY2011 to 68.8% in FY2012, which is still below the target of 75%. When comparing the different groups, Group 1, which has been supported the longest, had a baseline cure rate of 59.4% and has improved over the years to 67.2% in Q2/2011. Group 2 had a baseline of 68.4% and improved to 72.1% in Q2/2011. The only group that have achieved the cure rate of 75% is group 3, comprising of UMgungundlovu and Siyanda districts. (Fig 3.1)

A total of seven districts have achieved the target of 75% cure rate for new ss+ve cases (See Fig 3.2).

Similar trends are observed in the cure rates of re-treatment cases (See Fig 3.3).

3.2 Treatment Success Rate (target 80%)

The overall project performance for Treatment Success Rate (TSR) improved from 73.5% in FY2011 to 77.1% in FY2012, 2.9% short of the set target of 80%.

Seven districts have achieved or exceeded the 80% target. With the remaining districts and sub-districts having TSR more than 73%, except for Greater Taung and Venterdorp sub-districts in North West. The two sub districts have not received support since February 2012 following the resignation of the coordinator. The decreasing TSR for new SS+ cases is affected by the death rate and defaulter rates.

Trends in the different groups show improvements in TSR for new SS+ve cases; group 1 improved from 72.7% to 78.9% from baseline to FY2012 (See Fig 3.4). Of concern is the decreasing trend in Group 4, which is the newly added group. Quality improvement plans addressing the key challenges have been drawn and progress will be reported in the following quarter. Of note having shown improvement is Ethekewini district, which has achieved 82.6% treatment success rate for new ss+ cases, while having achieved 75% treatment success for retreatment cases (Fig 3.5).

For retreatment cases, TSR for group 1 improved from 56.3% at baseline to 65.8% in FY2012 (See Fig 3.6).

Figure 3.1: Trends in Cure rates for New SS+ve cases in the USAID TB Project supported districts: 4 groups, Jan 2008-June 2011

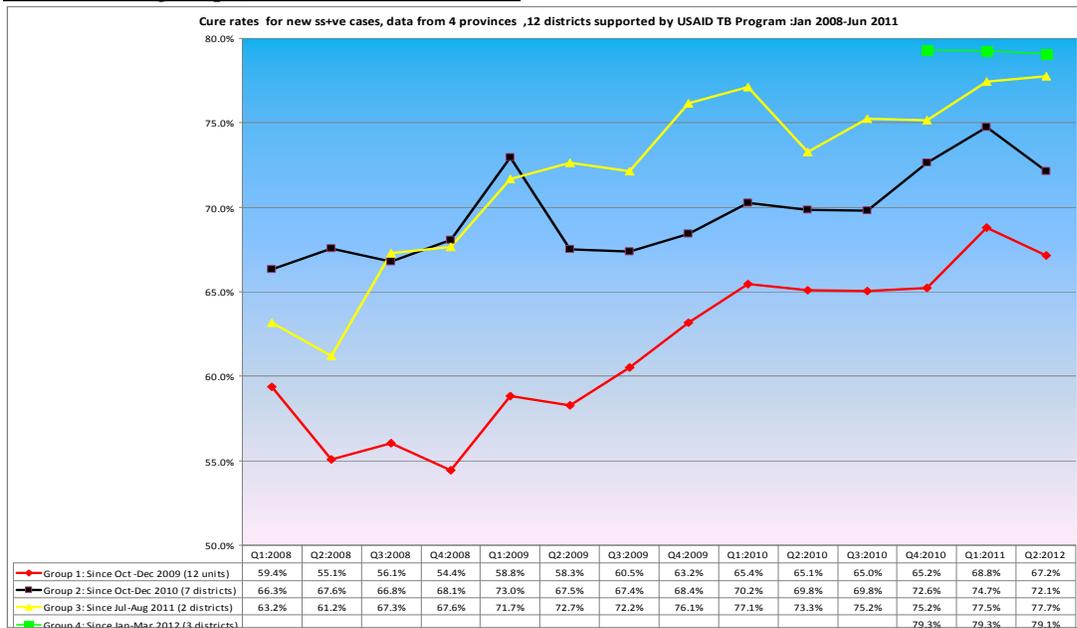


Figure 3.2: Cure rates for New SS+ve cases: Snapshot: April-June 2011

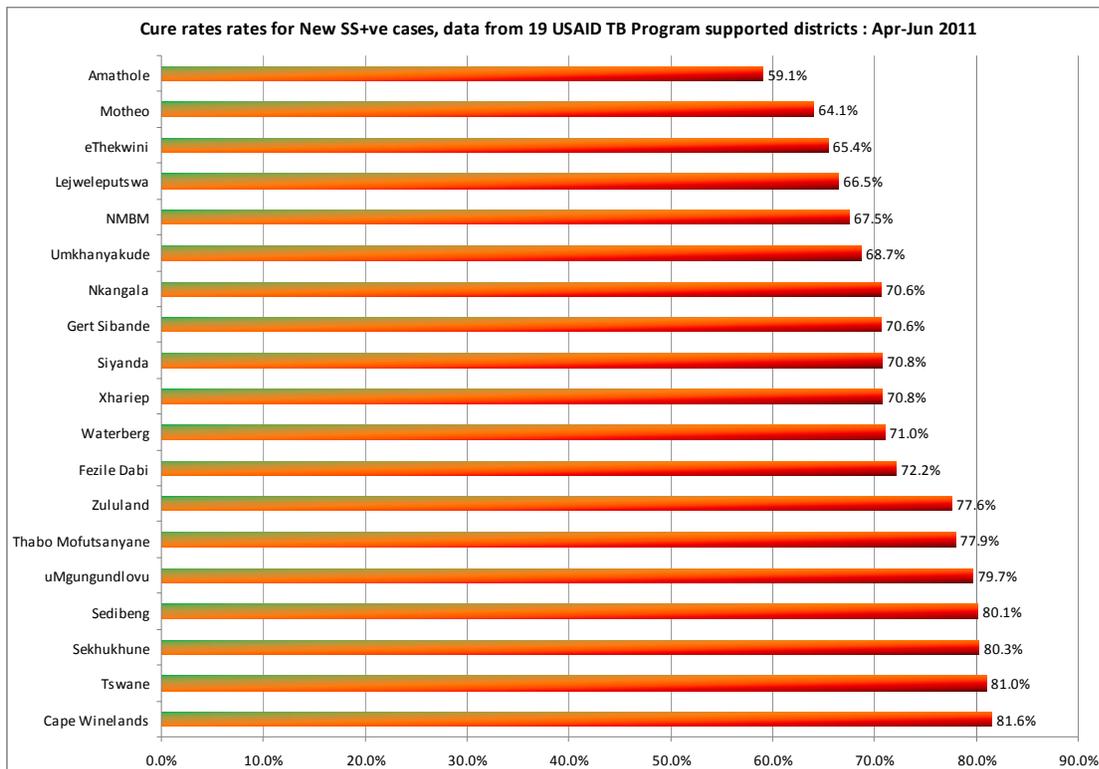
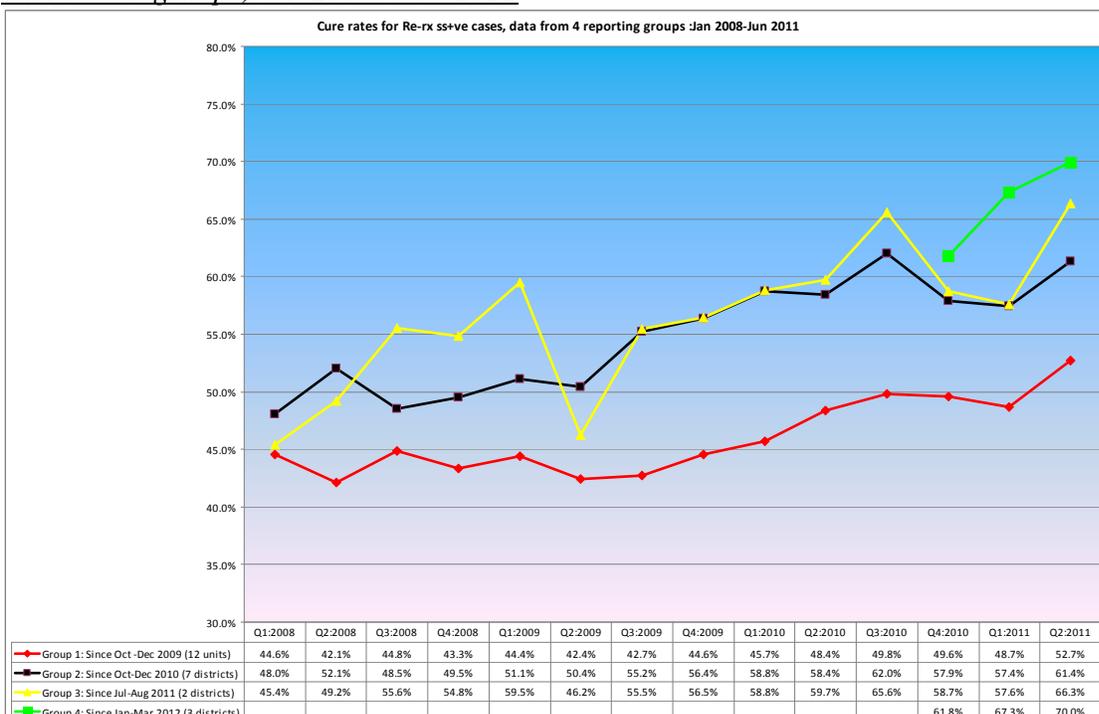


Figure 3.3: Trends in Cure rates for Re-treatment cases in the USAID TB Project supported districts: 4 groups, Jan 2008-June 2011



Improvements in treatment outcomes are attributable to ongoing support supervision, training and data verification exercises being conducted in different districts.

Table 2: District with sustained Treatment Success Rate Improvements

Districts having reached 80% success rates for 2 successive quarters or longer	Additional districts having reached 80% success in Q3 FY 2011
Cape Winelands	Sedibeng
uMgungundlovu	eThekwini
Tshwane	Sekhukhune

Figure 3.4: Trends in Treatment Success Rate for New SS+ve cases in the USAID TB Project supported districts: 4 groups, Jan 2008 to Jun 2011

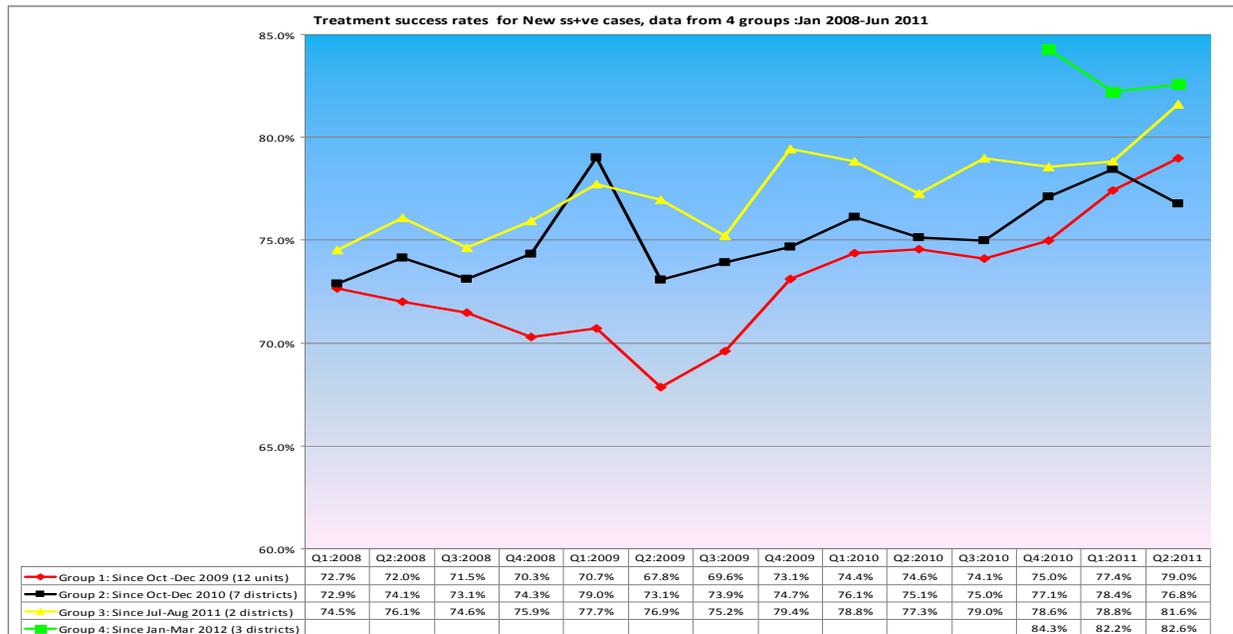


Figure 3.5: Snapshot for Treatment Success Rates New SS+ve cases: April-June 2011

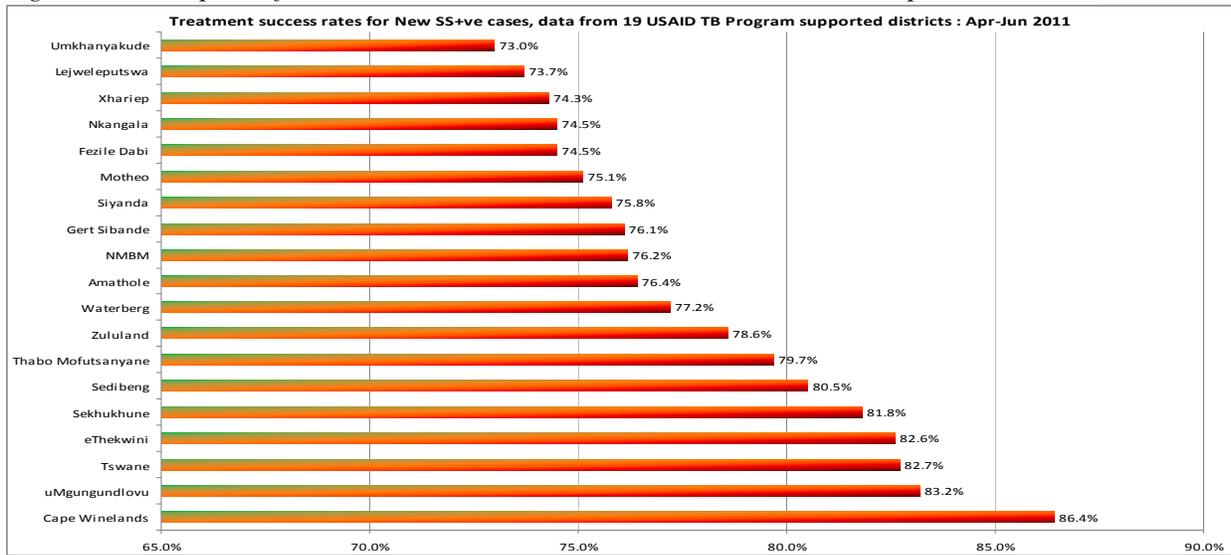
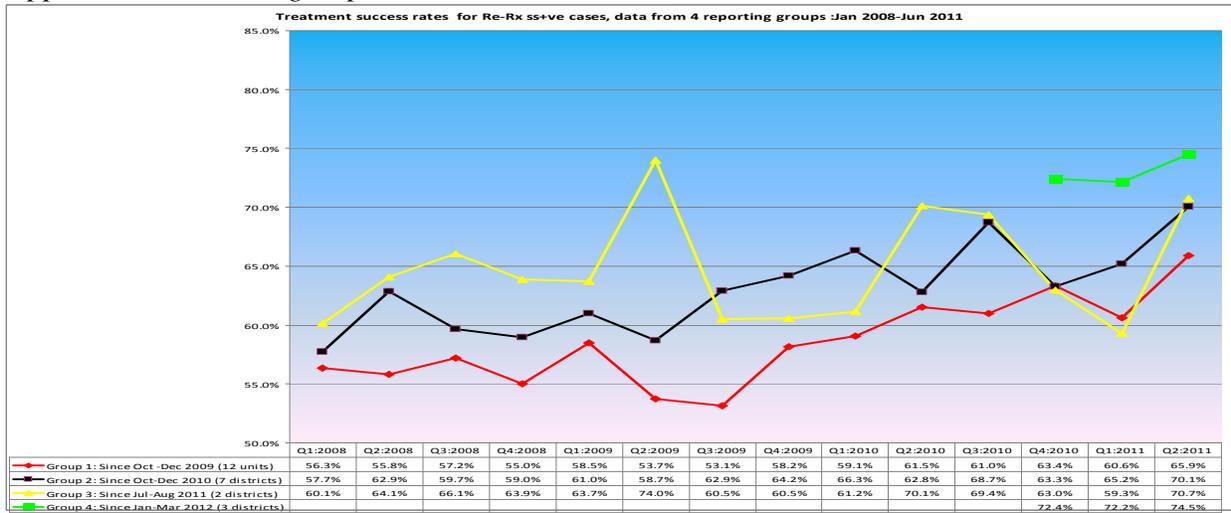


Figure 3.6: Trends in Treatment Success Rate for Re-treatment cases in the USAID TB Project supported districts: 4 groups, Jan 2008 to Jun 2011



3.4. Defaulter Rate (Target<5%):

While the death and defaulter rates have been steadily decreasing since 2009, a major finding for FY2012 is the sudden and concerning increase in treatment failure rate from 1.9% FY2011 to 6.9% FY2012 as unfavorable outcome. Increase in treatment failure rate might explain the high trends in DRTB (See Fig 3.7).

This will need a thorough investigation to understand whether this is a data issue or whether it is sustained. The project will identify the affected districts and investigate further. An SOP to manage those remaining positive will be incorporated in the SOP developed for management of retreatment cases which has already been developed. The purpose of the investigation is to identify DR TB

cases early to prevent further spread of TB and reduce morbidity and mortality due to delayed initiation of correct treatment.

Four districts and 4 sub districts in North West have achieved the defaulter rates of $\leq 5\%$, while a further seven are below 6% for new ss+ve cases.

The group that is worst performing is Group 1, although the defaulter rates have decreased from 9.3% in Q2/2010 to 7.9% in Q2/2011 in the same group (Fig 3.7). The districts affected in Group 1 are NMBM, Amathole, Ethekekwini, Sedibeng and Nkangala. NGOs to trace defaulter and provide TB treatment support for TB patients have been funded in NMBM and Ethekekwini. Progress on defaulter rate will be reported in Q1/2013. Group 2 has the lowest defaulter rates for both new and retreatment cases (Fig 3.8 and 3.9).

For retreatment cases, the same districts NMBM, Amathole and Ethekekwini have high defaulter rates reported. Siyanda is the only district affected by defaulter rates in the newly supported districts, the identified challenges being migrant labour and social issues including high alcohol consumption. Information material on TB and alcohol will be translated to ensure that the community in Siyanda, which is predominantly Afrikaans speaking, accesses the information. Table 3 depicts districts which have achieved and sustained low defaulter rates.

Table 3: Districts which have sustained defaulter rates $\leq 5\%$

Districts having sustained defaulter rates $< 5\%$ for 2 quarters of longer	Districts having reached a defaulter rates $< 5\%$ in Q3 FY2011
Lejweleputswa	Matlosana (sub district)
Thabo Mofutsanyane	Mafikeng (sub district)
umKhanyakhude	
Sekhukhune	
Greater Taung (sub district)	

Figure 3.7: Trends in unfavourable outcomes for New SS+ ve cases in the USAID TB Project supported districts: Jan 2008-June 2011

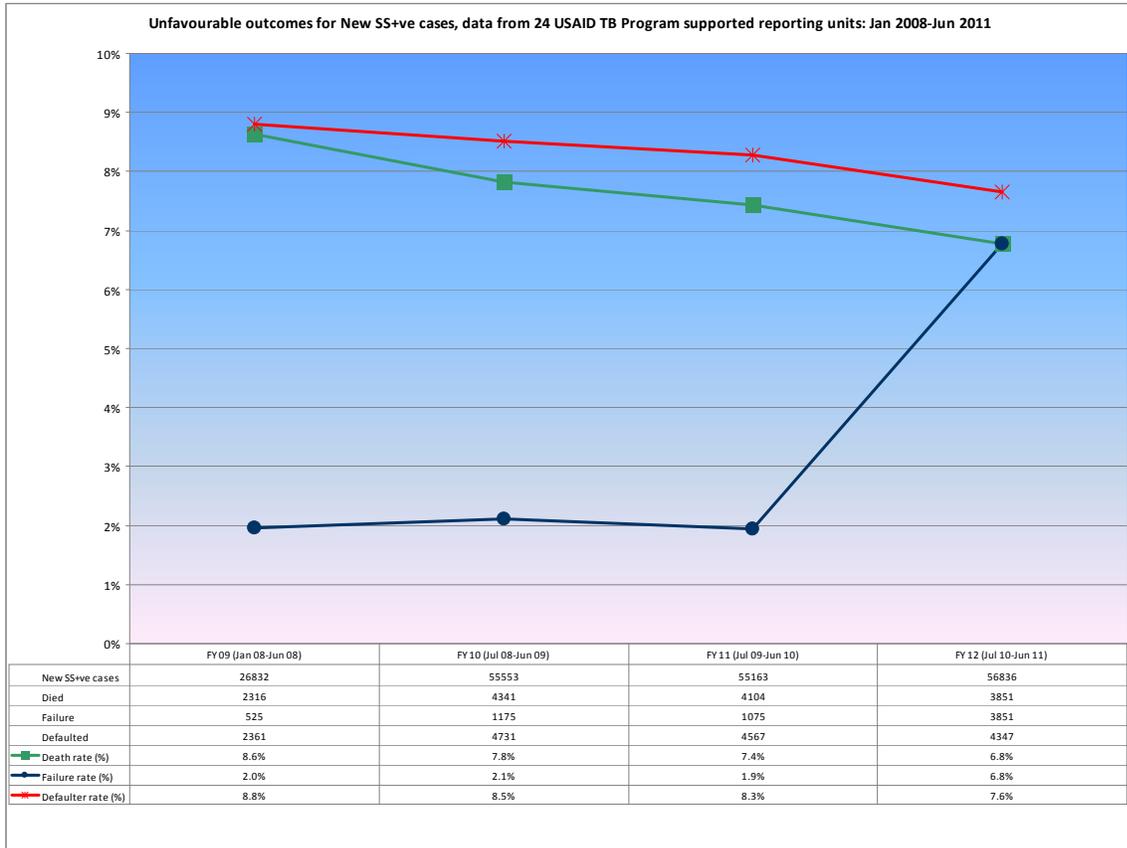


Figure 3.8: Trends in defaulter rates for New SS+ve cases in the USAID TB Project supported districts: 4 groups, Jan 2008-June 2011

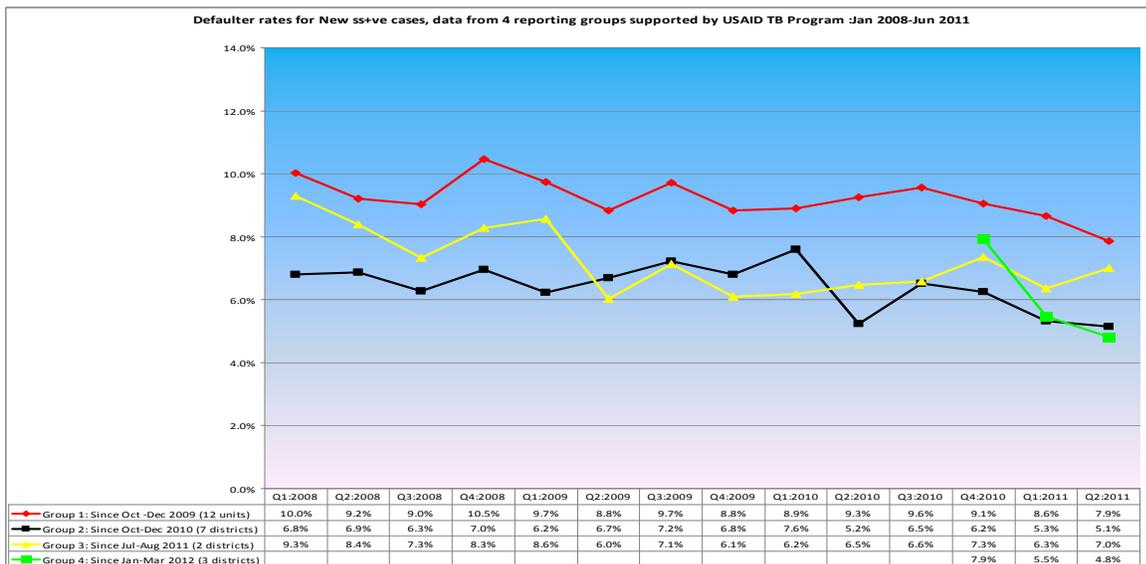
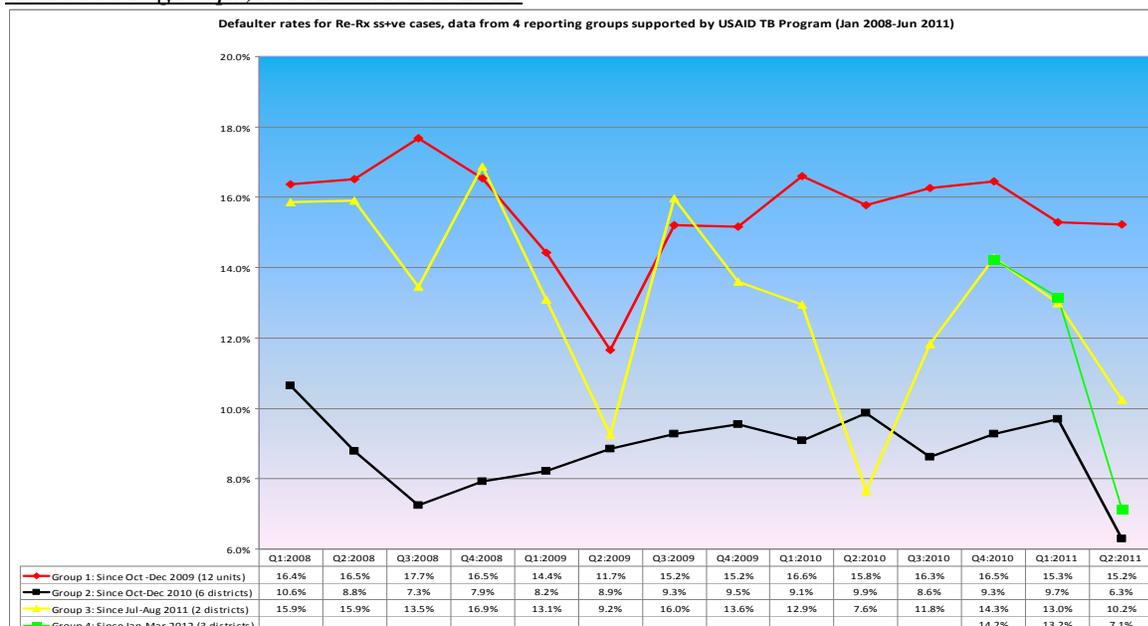


Figure 3.9: Trends in defaulter rates for Re-treatment cases in the USAID TB Project supported districts: 4 groups, Jan 2008-June 2011



3.5 Death Rates

Death rates have continued to improve over time, from 7.4% in FY2011 to 6.8% in FY2012. High death rates have been reported in Free State province, Limpopo (Sekhukhune), Zululand, Greater Taung and Matlosana.

Characteristics of patients dying for TB in Sekhukhune district, Limpopo province: rapid assessment

A rapid assessment to determine the characteristics of patients dying in Sekhukhune district was conducted jointly with LPDoH. Twelve facilities were selected based on the number of deaths reported. The facilities included four hospitals in the district.

Key findings:

Period of study: March 2010 – Dec 2011

- ✓ Age: 28 – 64 years: 88%; 10% over 65 years
- ✓ 143/168 of completed records were started on Rx (85%)
- ✓ 150 (89%) were new TB cases: 80% (120)PTB
- ✓ Of the 16 retreatment cases, 81% were PTB (13)
- ✓ Date of diagnosis and treatment start date
 - 114 data entries unusable (either not completed or only one date completed), therefore not included
 - 43 correct entries: 63% < 3days; 28% 4 -7 days; 9% > 7days 120 PTB
- ✓ Pre-treatment smears done on 86 (72%), 75 smear positive (87%)
 - 58 have smear grading result recorded; 32/58 (55%) had smear grading 3+
- ✓ HIV status

- 142/168 had an HIV test result (81%), 120 HIV+ (85%)
 - 70 had a CD4 count test done (58%)
 - 30 CD4 count results recorded (43%)
 - 25 had CD4 count < 200 (83%); 14 had CD4 count < 50
 - 30 on ARV prior to TB Rx; 26 on ARV during TB Rx; 74 no ART recorded (62%)
- ✓ Period between treatment start date to death:
- range 0 to 314 days; 81 (56%) died in the first 30 days

The analysis revealed that, most deaths occur in hospitals, within the first 30 days of starting treatment, most deaths are associated with HIV positive, 89% are new PTB, low CD4 count, not on ART.

Recommendations:

- TB/HIV training for clinicians
- Scale up ART initiation
- Investigate reasons for late presentation to hospitals
- Basic TB training for clinicians

Similar evaluations are planned for Free State and Zululand districts.

Conclusion

Project achievements:

The Project continues to provide support aimed at improving the quality of care provided to patients, reduce morbidity and mortality associated with TB and TB/HIV. Improvements have been noted in key indicators reported. The improvements follow implementation of improvement plans after identification of specific challenges during support supervision visits and data analysis conducted.

Bacteriological coverage

Eleven out of the twenty four reported districts have achieved the target of 85%. Improvements are attributable to intense support supervision, collaborative trainings, support to TB focal points and basic TB management training for doctors. Data verification and validation exercises also contributed to the improvements.

Cure Rates

Seven districts out of twenty four districts have reached the Project target of 75%.

Treatment Success Rates

Seven districts have reached the project target of 80% for Treatment Success rate.

Defaulter Rates

Eight districts and sub district out of the twenty four have achieved the project set target of <5%.

Moreover, the trend analysis was conducted by the consultant in the champion facilities, which revealed increase in cure rate from 66% to 80% and in success rate from 74% to 85% between the Q1 2009 and Q4 2010.

Project M&E specific Challenges and solutions:

- ETR.NET challenges were reported in most of the districts supported. In Mpumalanga, the province could not report for April to June 2012 due to migration to version 2, the latest version of ETR.net. This necessitated an urgent intervention to assist the province in re capturing data from version 2 to version 1. This resulted in delays in submission of reports in all the districts affected.
- The ETR.net training which was planned for URC staff could not take place because of delays in DoH to provide the dates and trainers.
- The database developed by BEA has not yet been finalized to run the required reports.
- Incomplete data submitted for Ngaka Modiri Molema, Greater Taung due to ETR.net challenges and lack of staff in the districts.